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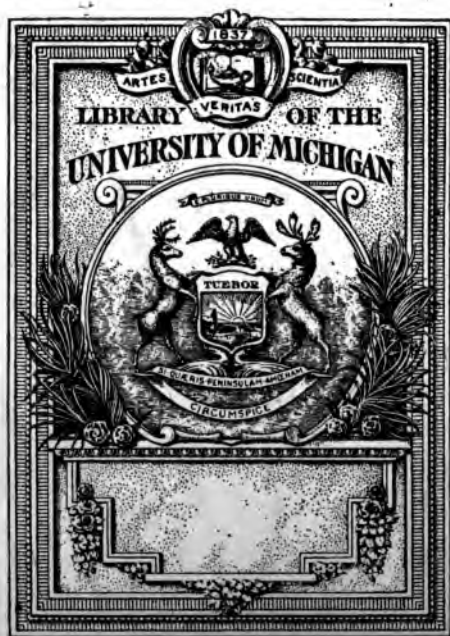
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HUMAN ENGINEERING



HUMAN ENGINEERING

A STUDY OF THE MANAGEMENT
OF HUMAN FORCES IN INDUSTRY

BY

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TO MY PROFESSOR
DR. LEE GALLOWAY

380389



PREFACE

The present unrest in the world of labor is due partly to temporary causes. Among them appear an increase in the cost of living which results mainly from inflation of currency; the desire of certain groups of laborers to share in the extortionate prices which their employers have been allowed to charge; the demoralization resulting from the excitement and changes caused by the war; and the dissemination of radical propaganda. But the present unrest is not due chiefly to circumstances of the moment; it is due more to deep-rooted aspirations which mark a stage in the actual evolution of society.

Society is in a continual state of evolution, but its different groups have never progressed equally. Discordance has separated the groups and caused issues to arise which are not clear to us because we interpret them more or less by means of outworn ideas, prepossessions of the past, which confuse our understanding of new principles. Consequently, conflicts between past beliefs and present truths have brought about strained industrial and social situations.

The issues that depend upon the industrial problem have not been determined by the will of any group of men. They have arisen out of the very nature and circumstances of industrial development. They are now clouded by the difficulty of readjustment to after-war conditions, but a careful analysis makes it clear that they

cannot be settled by mere economic compromise. A stable settlement requires a scientific treatment of human forces and the establishment of a new relationship among the competing parties—labor, capital, and society—which will liberate the vital aspirations of a progressive, industrial population. We must recognize the facts as they are and interpret their meaning not merely in the light of past experience, but in the light of the requirements of a future social order where the position, rights, and duties of every one will be more clearly defined and hence more willingly accepted.

The popular conception of the purpose of industry is the realization of profits; but, as society has progressed, the modern conception has added social service. These two conflicting conceptions have created a chronic state of conflict between personal and social interests, and, consequently, have caused industrial troubles. The old school of management, on the one hand, does not regard laborers as human beings; the modern school of management, on the other, recognizes laborers as human beings and has sought to get their goodwill. But in spite of the progress which modern management has realized, it has failed to remove the distressing unrest of labor because it has managed industry only for the personal benefit of both employer and employed. It has ignored labor as a social group and has disregarded the social purpose of industry. The obsolescence and one-sidedness of such a method suggest the need for a new principle—that of stimulating labor as a whole toward production at large for social purposes. The presentation of this principle is the object of *Human Engineering*.

The theory of what we call human engineering is not intended for any particular country, though its applica-

tion is best adapted to America because this country is the most advanced in democracy. It is not destructive of existing evils; it is a positive and constructive management of human forces for a natural promotion of greater democracy. Human engineering has been based upon the universal traits rooted in human character, in accordance with leading ideas in business, economics, psychology, sociology, and ethics.

The purpose of this book is not to advocate a particular system of control of production or a transformation of society. It is to discover the principles of evolution in industry and to apply them to progress. It is also to study the governing human forces behind facts, for the knowledge of these forces is essential in order to see facts in their true relation to the whole process of evolution.

The first part comprises a study of the evolution of the ideas governing industrial relations and shows how the change of ideas has been reflected in the development of trade unions, labor parties, socialism, state socialism, and coöperatives—means employed to counterbalance the growing combinations of capital. Since none of these movements has been able to solve the industrial problem, it is important to understand their deficiencies and dangers to society.

The second part interprets the essentials of present issues, presents recent democratic tendencies, and develops a typical organization for class coöperation on the principle of proportional representation.

The third part gives a brief analysis of the different psychological associations of men involved in industry. It applies what modern sociology has discovered concerning the characteristics of the different associations, such

as the crowd, the public, the sect, and the corporation, a knowledge of which has become essential in handling collectivities, that is, organized groups of men. Further, it discloses the forces that control human behavior in its relation to industry and shows how to manage these forces.

The fourth part attempts to determine the principles of human engineering and practically to apply them to motivation of labor for coöperation with other social groups.

The conclusion states that no fundamental transformation of industry or society is needed to attain a peaceful settlement of industrial problems. A logical development of our institutions can accomplish it.

The method followed is a purely scientific survey of the different tendencies of the spiritual forces involved in industry, in order to discover what these tendencies mean and how they can be coördinated into a living relationship with one another. For these spiritual forces comprehend all mental faculties and powers of man, intellectual, spiritual, moral, and sentimental, which govern all phases of human life.

A survey of the evolution of radical ideas has also been made, not to spread propaganda, but to set forth the actual sequence of social phenomena. If we observe social phenomena, as the chemist observes reactions in his test tube, we see how proper motivation secures the goodwill of labor and how Czarism produces Bolshevism as surely as sulphuric acid with a base produces sulphate.

I have used the conclusions of many specialists in different sciences, for, from the complexity of the problem, I cannot be a specialist in all. Hence, there are many opportunities for errors of detail. In this first attempt to

present human engineering as a science, I have made no effort to build up a special terminology; the science of human forces is too new and is still too imperfect for me to undertake the settlement of its forms. Consequently, I do not insist upon the letter of my statements. I have merely ascertained the main features of development of industry and made of them a sketch which embodies the essentials of a universal relationship of personal, industrial, and social lives.

In support of my contentions I have quoted freely from the most recent special literature, but the substance of this work has been inspired by a quarter-century of industrial life. So my thesis is not a mere logical structure; it is the result of the impress of millions of facts, and is an intuitive response spontaneously evolved from observation of the tragedy of labor. Moreover, I have learned the meaning of realities by experience in active association with the actual lives of several widely differing peoples.

My thanks are due to Dr. Lee Galloway for his encouragement and suggestions, and to Mr. Ernest Scott Quimby, whose help in revising my manuscript and correcting my English has been invaluable.

EUGENE WERA



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PART I

PSYCHOLOGICAL EVOLUTION OF INDUSTRY



HUMAN ENGINEERING

CHAPTER I

COÖPERATION

1. **Definition.**—The great and distressing problem of to-day is the lack of coöperation among the personnel of great industrial and commercial enterprises. At the best, this means that men are indifferent to the result of their work. At the worst, it means that they deliberately waste time and material or menace the social order.

One of the purposes of management, therefore, is to get the coöperation of the employees. But what is coöperation? Webster's dictionary defines coöperation:


Joint operation, concurrent effort of labor. The association of a number of persons for their common benefit; collective action in the pursuit of common well-being, especially in some industrial or business process.

The concurrence of effort in collective action for common well-being is the essential of this definition.

In practice, coöperation is manifested by a vivid interest in one's occupation, by a desire to be of service and to make good for one's firm, and by anxiety for its fame and prosperity. It means attention concentrated on one's task, honest endeavor during full working time, thought for constant improvement, elimination of waste,

teamwork, self-discipline, willing adaptation, and the spirited exertion which courage and loyalty stimulate. Occasionally, it means some self-denial. In other words, coöperation would be perfectly expressed if a man worked for his employer as he would work for himself in his own business. Such a coöperator is rather exceptional, though it seems that employers expect to meet him in the person of every employee. Such expectation is vain. For example, the increase of output occasioned by piece-work often suggests that dishonesty motivates the slower pace of daywork, but it is not so. There is no reason why any individual worker should deliver more than the usual amount of work furnished for the customary day wage of his trade, in spite of his ability to do so. Moreover, leveling wages levels down output.

The supposed right of the master to exact devotion from his employees is a remnant of the feudal status of labor which has not yet been completely effaced from the mind of the old-school employer. Yet its fallacy is evidenced by the universal inertia of people working under average conditions. Normal wage can purchase only the ordinary routine work of the average man of each class. Intelligence, initiative, concentration, spirited exertion, self-denial; that is, coöperation, constitutes an extra thing which is not included in the contract of labor. We do not realize well enough what such an extra thing means and what a superior combination of high physical, mental, and moral qualities is required to produce it. Under normal conditions, the effort which the average man is willing to put forth, is the habitual effort. Everything which requires foresight, new combination of thought, exceptional alertness, continuous attention, any unaccustomed movement or exertion, is difficult. Em-



ployees are willing to coöperate with their employer for a common benefit; that is to say, to work with him but by no means for him. The extra effort is such an altruistic expression of human nature that it cannot be entirely paid for with money. Coöperation demands a common end of pursuit, which cannot be found in specialized tasks.

2. The Scope of Coöperation.—Coöperation is not merely an honest discharge of one's obligations; its scope is much broader and higher. It implies a common understanding of the ideals to be pursued, a community of purposes, an agreement upon the means to these ends, a willingness to give another right service, and readiness to receive his service in return. In other words, it involves a sincere endeavor to attain greater results, to unite the individual's activity with that of others, not only on the economic but also on the intellectual, moral, and social planes. Nothing of importance is now accomplished without it. Indeed, coöperation is the great social phenomenon of our epoch; it is the light of our civilization.

Coöperation exercises itself among coworkers by advice, information, example, help, considerateness, and the fitting of one's job to that of others. The foreman coöperates with the employee by giving, in an unmistakable manner, the right instruction at the right time, by common sense in keeping principles, by patient teaching, by helpful supervision, and by listening to the suggestions of the employee. In return, the employee gives confidence, discipline, attention, timely report on trouble and waste, and aid in the search for constant improvement and for greater efficiency. Coöperation manifests itself between foremen, squads, or departments by setting a proper se-

quence of operations, by avoiding retrogression in manufacturing processes, by avoiding duplication of work, by facilitating the handling of material and subsequent operations, and by an appreciation of each other's means and requirements in order to minimize friction. It is needed among executives for realizing community of purpose and unity of action. It is a fundamental condition between the chief executive and his personnel.

Coöperation also extends beyond the plant; for, indeed, every day we see novel efforts to facilitate handling, transporting, and preserving products and to increase efficiency in their use or consumption.

Consider the work of the sales and advertising men and dealers. They unite in educating the masses and shaping their standard of living, in increasing the welfare of a progressive people, and in developing the absorbing capacity of the market.

Consider the railway, which is almost the partner of every modern business. It coöperates with both stages of production; the concentration of raw materials at the factory and the distribution of finished goods. It increases the area of supply and consumption to such an extent that all centers of production have become interdependent. It has made possible that specialization of industry which makes coöperation necessary among specialized workers and specialized centers.

Consider how much we owe to the fine coöperation, verging on partnership, between banking and business concerns. By this means, credit has multiplied many fold the powers of commerce and industry, although the full development of credit is yet to come. Again, in finance, the coöperation of many small investors makes it possible to raise huge capital for the establishment of large

industries. Thus common people have become copartners in the most formidable enterprises in the world. Furthermore, insurance is a great financial coöperation for the distribution of risk or of loss from disasters of all kinds.

Coöperation is not limited to the activity of people united by the same interest. To the confusion of the old individualist, it extends to competitors who find untold advantages in helping one another, as for example, the association of credit men, which decreases losses and expands business. The progress of technical and business methods is due largely to the diffusion of knowledge by the pioneers of science and industry, who impart the results of their studies, investigations, and experience through special publications, lectures, and expositions, or by means of visits to factories and works. Industrial progress is no longer worked out in secret by one man in an inefficient manner. To-day, progress in science and industry is due to the fullest coöperation of experts, not only of this country but of the whole world. They create the powerful currents of thoughts which, although unperceived by the layman, build up our civilization with such a rapid pace that the average business man is scarcely able to keep himself up-to-date, even in his own line.

Such world-wide coöperation also unites in a common purpose all professional men; such as teachers, engineers, physicians, lawyers, bankers, psychologists, sociologists, and so on. Every body of specialists has its journal and publishes the full results of its researches. It may be said, therefore, that science is the purest fruit of coöperation. The press has become a formidable tool for coöperation on a large scale, and at the same time the in-

strument for the diffusion and exaltation of the spirit of coöperation.

These few instances show that the whole system of production has become a vast work of coöperation, the complexity and gigantic proportions of which no man had ever dreamed. The present system is a result of the survival of the fittest means to serve the actual wants of humanity.

Service is the real test of coöperation. We observe in passing that he who serves best deserves the highest reward in every field of activity. Simple muscular effort is as cheap as is raw material; its work lacks the impress of intelligence. Whether service is rendered directly or is embodied in products, it is the more valuable the more it reflects intelligence; an intelligence which vitalizes things and makes things valuable because they acquire qualities which respond to the demands of life. It is often supposed that manual labor is mere physical exertion. But there is no physical work which would not be improved by the coöperation of intelligent attention. Many mechanics have to supplement a little physical exertion by much mental work. Besides, all workers have to stimulate their wills to overcome their own inertia and adverse external conditions. They have to fit themselves to their jobs and can increase their efficiency considerably by extra effort of will.

In our modern life, under the division and specialization of labor, the individual worker contributes only an infinitesimal part to the production of the commodities he consumes. Through our social system, he exchanges his services for the services of others. Consequently, social progress has become the ultimate end of coöperation. Coöperation, therefore, is not a mere accidental

application of good will; it is the manifestation of the universal spirit of our civilization which fuses endless differences into social solidarity. It is, moreover, the very principle of a democracy in which every citizen has the right and the duty to collaborate in building the ideal state of his aspirations.

3. **The Need for Coöperation in Production.**—The leading nations believe that greater coöperation is needed and encourage combinations among manufacturing, financial, and shipping interests, for standardizing production and reducing costs as well as for purchasing raw materials. The object is to eliminate waste and inefficiency and to avoid duplication of effort in order to decrease buying, producing and selling expenses. The present economic conditions make international coöperation for administering the opportunities of the world the highest goal of business, for the destiny of humanity depends upon good will and mutual services among nations. The interdependence of nations has become so compelling as to inspire this declaration by R. H. Rice, acting manager of the General Electric Company:¹

If America is to maintain her position as an industrial nation in the years of reconstruction and post-reconstruction to come, she must be able to manufacture and export to foreign countries all those articles of commerce which her genius and inventive ability have produced and will produce under competitive conditions more severe than any which we have as yet known. She must be able to manufacture and market her products at home under similar competitive conditions. The industrial facilities existing in America to-day are so much more extensive than they ever have been

¹*Electrical World*, March, 1919.

that our home market will no longer be sufficient to absorb our products.

Consequently, the higher world-wide coöperation must begin by winning the good will of the humblest working man.

CHAPTER II

INDUSTRIAL EVOLUTION

4. Evolution of Industry.—The history of industrial systems is a record of the growth of union. Each stage of this long development has had its own peculiar organization, characterized by the relation of capital to labor. In primitive life, commodities were supplied by private production for private consumption. There was no capital, no exchange, no division of labor; therefore, coöperation, in the economic sense, was absent. The organization of the family and clan marked the first stage of union and coöperation. But it was only when small groups accumulated a stock of goods that exchange of surplus goods from one group for goods of a different kind from another group initiated commerce. Slowly, people recognized the advantages of greater union and organized socially into larger communities. Trades were differentiated and a system of local exchange developed. The craftsman owned his materials and his tools and thus was independent. Then different centers developed higher perfection in particular lines of production. The products of these centers, therefore, became more desirable for other communities. But without capital, salesmanship, or machinery for distribution, the craftsmen could not benefit much from their skill. Such a new opportunity invited the middleman to enlarge the field of exchange. He incurred the risks, which were consider-

able in early trade, and finally accumulated wealth. The demand for products grew faster than the growth of hand production. As soon as capital had become available, machines were invented and production was centralized in factories where man's efficiency advanced. The effect of that evolution was cumulative. Decrease of cost increased trade which, in turn, brought wealth. This wealth, then, invested in machinery, multiplied productivity and decreased cost more. During this stage the different communities were still to a great extent self-supporting; therefore, commerce was mainly a private concern. Its object was the exchange of surplus products for the purpose of accumulating wealth and gaining power for the entrepreneur; that is, for the man who undertakes the conduct and responsibility of production.

Later on, governments came to realize that greatness of nations lay in development of industry and commerce rather than in annexation of more land. Hence laws were passed to encourage production and transportation, to make the roads safe for commerce, and to regulate the commercial relations. The economic progress which followed has been so great that the productive centers of all nations have become interdependent. This interdependence of social groups and districts, as well as that of individuals, has laid upon us the obligation to serve. Indeed, those who have renounced producing their necessities in order to specialize and, by doing so, have augmented their usefulness to society, have, in return, an unquestionable right to demand of society provision for their necessities.

Now, the right of the public to be served adequately is protected by legislative regulations and by a measure of direct control of production. The limitations imposed

upon the entrepreneur grow in the proportion that his services become of more general interest. These limitations are exemplified by the government regulation of railroads, public utilities, banking, telegraphs, and telephones. On the other hand, where production is experimental, special in character, or not essential to human life, and where conditions of production are not standardized, the control exercised by society still consists chiefly in interdiction of restraint of trade. Society, in general, is sufficiently protected by the play of free competition. Thus, we have entered into the phase of business coöperation under public control. Whatever may be the degree or form of that control does not matter. The principle of limiting the right of managing one's business, when many are interested, is established, and the applications of this principle will develop parallel with social necessities. Limitation of the rights of private ownership is already exercised by taxes, inheritance duties, right of eminent domain, requisition for war purposes, embargo, interdiction of nonessential industries, and control of building operations. Such increase of limitations changes the old conception of private ownership.

The interweaving of the interests of distant people has done more than anything else to build up national unity and to extend the spirit of solidarity. This community of interest has emphasized the idea that we all buy and sell services; and this idea has become the basis of our civilization. The universal acceptance of this idea will come as people learn by experience and realize that the whole of services received cannot exceed the whole of services rendered.

Industry, which originated as a private means for private interests, has become a social, organic institution in

the form of a complete system for the exchange of specialized services. By stimulating willing coöperation it will become the most efficient form of union yet attained. It has ceased to be a mere collection of unrelated private interests; it has grown into a vast social entity with rights and duties of its own quite distinct from those of capitalists.

5. Evolution of Capital.—The wealthy people of the past, who were the land-owners, did not condescend to take any interest in business and considered it vile. Therefore, capital was scarce and was cautiously used in financing its owner's business. On account of the great risk inherent in pioneer enterprises, great freedom and attractive privileges were necessary to induce investment. So legislative restraint and ethical obligations were at a minimum.

The next stage of industrial finance was partnership. When partners were actively associated for the conduct of their business, the status of capital remained unchanged. It was only with the appearance of the silent partner, who had no active part in management, that speculation upon the transactions of others became characteristic of industrial financing. In the new capacity of silent partner, the capitalist enjoyed most of the privileges of the individual entrepreneur, on account of the unlimited responsibility of the partners and on account of the privacy of their mutual arrangements.

Then came the joint-stock company, which limited the responsibility of partners without greatly altering their personal attitude toward business.

Finally, the corporation and holding company followed and revolutionized the status of capital in its relations to industry and labor, for the capitalist, the entrepreneur,

and the laborer have become distinct parties. It may be opportune to recall that a corporation is a legal entity whose existence is independent of its stockholders. They cannot withdraw their shares of capital, but are at liberty, at any moment, to sell their stock, which represents merely their title to the proceeds of the corporation and entitles them to elect directors. As a result of the separation of the capitalist from the entrepreneur, the corporation has distinct interests which are sometimes in opposition to those of its stockholders.

This new status of industrial ownership led fatally to speculation, defined as "an actual settlement of a disagreement as to future profit." The magnitude of daily stock transactions shows that many stockholders have but a temporary interest in the business of the corporations. Often they know nothing about the business and consequently their indifference to the problems which confront management is absolute. This situation of absentee directorate has done much to focus attention upon the necessity of developing a body of principle, practices, and laws to satisfy the needs and safeguard the rights of all who are engaged in industry.

The attitude of absentee stockholders has naturally somewhat impaired the former prestige of capital. Right of ownership is respected in the proportion that capital is the product of work and that the service, of which it is the reward, is personal. The more capital is the result of speculation, the less respect it commands, and the less become its rights of ownership, because then it represents rather the lucky fruit of circumstances afforded by the community than the result of services rendered by its owner. When capital is purely accumulated work, it can

properly command labor because in itself it represents successful endeavor. Much of the profits of corporations is the result of work, but the subsequent distribution of that wealth through speculation gives the winners of wealth little prestige in the eyes of the modern laboring class. The continual increase of legislative limitations put upon capital proves that its prestige is everywhere declining and that an attempt is being made at a new definition of its rights.

Not all capitalists, however, are indifferent speculators. There is another class of stockholders who take actual control of the corporation in which they are interested and make it a point to stay at their posts, without regard to temporary reverses. They are the leaders of industry. To their initiative and their indefatigable energy, we owe the industrial development of the world. By them is borne much of the tremendous burden of unsuccessful ventures. It seems that this group is made particularly responsible for all the grievances against capital, especially when grievances are stated in an indefinite manner. And yet, if we consider the progress made, we must recognize the uprightness of captains of industry, for, if they were to take full advantage of their opportunities for exploitation, business would soon cease to exist.

There is another class of capitalists—those who lend money. Most modern corporations are financed not by stock alone, but, to a very great extent, by bonds too. The bondholders are also capitalists. Nevertheless, curiously enough, their status is very similar to that of laborers. They have no voice in the normal conduct of the business. The rate of interest which constitutes their return is the least possible obtainable at the time and under the conditions determined by the supply and demand of

money. Interest is a debt which must be paid, whether there is profit or not; and interest, like wages, is an element of cost, not a part of profit. Consequently, labor cannot seriously question the division of the proceeds of industry with bondholders. However, the proportion of loaned funds to capital stock varies considerably and affects correspondingly the disputed profit apparent in the rate of dividends.

Now, the sacredness of capital is enhanced by the fact that the diffusion of bonds and stock has reached the working class itself, which of late has contracted the habit of investing an ever larger part of its savings in industrial securities.

If we try to define, under the name of "capital," the persons upon whom labor makes its demands, the vagueness of the term "capital" appears; on the other hand, in the difference of responsibility attaching to stockholders, speculators, bondholders, directors, managers, or capitalist class and, on the other, in the increasing diffusion of shareholding. In practice, however, labor makes demands against any controlling power which perpetuates the divergence of purposes among industrial groups and which creates conflicts instead of promoting coöperation.

The criticisms leveled against capital seem to be justified by abuses rather than by the capitalistic system itself, which is still in the building period. Year after year, improvements in the system are made and new laws or rulings are submitted to the fire of practice. By continual adaptation, we approach slowly toward more stability and greater protection of the general interests of industry and labor against the immediate interests of capitalists. In these attempts at correcting abuses, the distinction between the entity of industry and capital has become funda-

mental. Each of the three parties—capital, industry, and labor—has rights and duties of its own and must be protected against the others.

6. Evolution of the Status of Labor:—I. *Isolation of the Worker.*—During the early stages of factory production, the volume of business was very much less than it is at present and most products were made to order to suit the particular convenience of customers. Many orders were never duplicated. Under such conditions, workshops had to do miscellaneous jobs. Moreover, it did not occur to anybody that anything else could be done, since all saw only diversity in demand. Such varied jobs required a good deal of constructive thought on the part of workmen of high skill. Consequently, it was the custom in every trade to train apprentices during a certain number of years, during which they earned next to nothing. Although apprenticeship meant long hardship, it gave, in return to the recipient, a capital of skill available forever and opened to him all the opportunities of his trade.

With the development of industry on a large scale, that state of affairs has changed considerably. Great increase of production, owing to help of capital and extension of the market, has led to the standardization of products and to the consequent specialization of operations. The division of labor was intended not only to cheapen costs but also to solve the problem of scarcity of skilled labor, the demand for which, in good times, generally exceeds the supply. This movement for material efficiency has brought about a continual reduction of the freedom, initiative and interest of the worker. Instead of following the product from start to finish, he no longer sees the significance of the part he plays in indus-

try and feels himself a mere cog-in-the-machine. This has too often produced a "cog," blind and unwilling because he does not understand any part of the process of production, except that which he does himself. Moreover, because he is virtually in the service of the foreman and thus is out of touch with the management, he has a sense of isolation and detachment and has lost all pleasure and interest in work.

Modern development of machinery has changed fundamentally the old industrial order. The modern machine not only utilizes greater motive power, but possesses ability of its own which is the embodiment of the skill of its designer. The more a machine develops in specialization, the more definite becomes its operation and the less it depends upon the skill of the operative. Therefore, the efficiency of the machine now depends primarily upon a thorough understanding of the intention of its designer and on the various combinations of the tool equipment. Such knowledge, being particular to place and time, must evidently be imparted by the employer in the form of specific instructions for his particular purposes. That condition naturally brings responsibility for operations upon the management.

II. Security of the Worker: 1. *Safety.*—We have seen how evolution has created a new social order which governs the relations between industry and society. Now we shall see what obligations industry has contracted toward working people.

In the early stage of the factory system, there was only a small number of manufacturers and they felt no obligation to society or labor, because their business was a nonessential addition to the old system of hand production.

Early machinery was relatively expensive compared with ours, but it was built for everlasting service. Experience, however, showed the fallacy of that principle. No machine escapes wear and tear, and, on the other hand, new inventions render obsolete the best of devices. Therefore, the manufacturer periodically had to scrap his equipment and replace it. Since he had no financial provision for this contingency, he learned, at his expense, that unknowingly he had given away his machinery, the price of which was virtually incorporated in the cost of his product. This cost was not, as he first imagined, composed simply of material and labor, but besides other items, it included as well the slow consumption of his plant. Hence, the factor of depreciation has been introduced as an element of cost in order to make provision for renewal when occasion demands it, and thus to maintain, at the expense of consumers, the level of the fixed capital.

The former machinery was dangerous to handle; but, as it was new and wonderful, the danger was considered as a matter of course and as avoidable with due care on the part of operatives. In fact, this view seemed to express the whole truth, since casualties were constantly avoided, thanks to the operatives' care. The law admitted the fault of the victims or of their coworkers; and, in most cases, exonerated the employer, who, therefore, did not trouble himself about improvements. Moreover, scarcity of capital, high cost of production, docility of labor, and novelty of machine production were other important factors which kept the prevention of accidents out of the question.

Later on, with the growth of capital, machinery developed in complexity and the frequency and gravity of acci-

dents augmented correspondingly. On account of advance in engineering, of accumulation of means from which indemnity might be paid to workmen, of growing unrest and of political pressure from the labor party, legislation increased considerably the responsibility of employers, and judges showed a tendency to rule against them. Thereupon, designing of machinery and plants followed a new trend; "safety first" became a motto, and safety devices were introduced which proved so successful that lately the study of accident prevention has become a special branch of engineering. In America, the "safety first" movement has brought into existence two strong organizations, the National Safety Council and the Workmen's Compensation Bureau.

At first, when the employer was made liable for an indemnity, the indemnity was looked upon as an accidental loss, and it was hoped that the loss would not occur again. But universal experience soon proved that casualties are not accidental, but incidental, to the process of industry. Their number and gravity may be reduced considerably, but in spite of all means of prevention, a certain number of accidents will happen. Then a new attitude toward accidents came. Inasmuch as accidents were recognized as inherent in industrial operations, the victims were entitled to indemnity irrespective of the causes of injury or of the fault of anybody. As a logical consequence, the law established industrial accident insurance. The insurance premiums that the employer must pay are naturally charged to cost, which thus includes in selling prices the costs of lives lost and mutilations due to accidents. It is quite rational, in accountancy, to combine the cost of limbs and lives lost, with the depreciation of the plant and of the equipment consumed in manufacturing the product. Such

a charge has become endurable on account of continual decrease in the cost of production and in the frequency of accidents and on account of the distribution of the risk among a multitude of consumers.

2. *Old Age*.—A further examination shows that industry consumes lives not only casually but continually. Indeed, old people who have worked all their careers and have become incapacitated by old age have given away a surplus of energy which should sustain them to the end. But, unfortunately, the compensation of labor has not yet been adequate to provide independence for superannuated workers. It is sometimes contended that certain skilled workers made money enough to save. Some did, but the great majority of working people have not been able to provide for a comfortable end of life. Their income has been insufficient, their education has been inadequate to their needs and their family expenses have been disproportionate to their resources. As a consequence, pension or old-age insurance systems have been introduced in the leading countries. Although they are still carried out only on a small scale, they establish the principle of incidental consumption of lives and the responsibility of industry. These expenses, incurred as a consequence of industry, are a new element of cost to be paid by the consumers who enjoy the products. The pension systems vary chiefly in the degree of governmental intervention; they are rather complicated and a description of them has no place here. This statement of principle suffices to show the development of responsibility in industry.

3. *Minimum Wages and Unemployment*.—Although as a whole, the standards of working and living have never been so high as they are to-day, the lowest classes

of labor have not been benefited by industrial development. J. A. Hobson maintained:¹

The conclusion is forced upon us, that the gain of machine production, so far as an increase in real wages is concerned, has been chiefly taken by the highly-skilled and highly-waged workers, and that, as the character of the work and wages descends, the proportionate gain accruing from the vast increase of productive power rapidly diminishes, the lowest classes of workers obtaining but an insignificant share.

Moreover, the development of large-scale production has deprived the worker of the possibility of owning his tools, of control over material, and of a share in business management and has placed him in complete dependence. As a compensation for such exclusion from opportunities labor demands a guaranteed minimum wage to maintain comfortable living.

It is true that the present industrial system has considerably increased the opportunities to work and to apply one's particular ability. It is true, also, that any individual is at liberty to go into business for himself and that the number of small concerns operated in the old fashion has never been so large as it is at present. Nevertheless, the great body of labor engaged in large-scale production is tied up to the present industrial system; and as a logical consequence, labor renders industry as a whole responsible not only for an adequate compensation that will secure a minimum standard of living but also for permanency of employment. From the standpoint of any particular concern, such responsibility looks threatening. However, there is no escape from the conse-

¹ John A. Hobson, *The Evolution of Modern Capitalism*.

quences of the established system; but it is the whole industrial system which is responsible, not the individual employer.

On the ground that labor has no control over the management of business, financial conditions, market conditions, or volume of production, it refuses to submit to the hard consequences of industrial crises produced by the weakness of the system to whose control it is not a party.

CHAPTER III

EVOLUTION OF ATTITUDES OF LABOR AND CAPITAL

7. Original Attitudes of Master and Servants.—In order to make clear the cause of conflict between employer and employee, I shall sketch first the methods of the old school, the description of which is based upon narrations of witnesses of the middle of the Nineteenth Century. I recall the original ideas and practices in order to disclose the remnants of the past which are still interwoven with our modern methods and which hamper progress.

The factory system of production started in the Eighteenth Century and developed slowly through the Nineteenth, at the end of which it progressed rapidly with the improvement of machinery and with the extension of capitalism. As compared with the evolution of civilization, the industrial system of production is, therefore, quite new; and if we consider that it develops continually in each generation, we realize how difficult it is for man to adapt himself to continually changing conditions.

Up to the Nineteenth Century, the principal resource of man was agriculture. The standard of living of the common people was very low, and their earnings were small. But they had little, if anything, to buy, because every family supplied most of its wants. Because they bought little and because capital was scarce. the factories

in the beginning were small, whereas the supply of hands from the farms was practically inexhaustible or, at least, quite out of proportion to the demand.

The status of these frugal people, struggling against each other for the very means of life, determined the original attitude of employers toward labor. On account of competition among working people, employment in itself was regarded as a favor of the master granted to the applicant for work. That grant, however poor it might be, was from the start a sufficient motive for loyalty, all the more because the earlier period of serfdom had left a natural tendency to servitude. The employer was, in fact, the master and was recognized as such by his servants. These words still survive in law.

The entrepreneur, at first, was a single individual risking his scant money, saved with difficulty from hard labor. So, on account of the directness and vividness of his interest and on account of the lack of business principles and precedent, his policies were necessarily narrow and selfish. Immediate interest was his sole guide. Imitating his feudal predecessors, the master was naturally a slave driver. Encouraged by the passivity of labor, he fell into all the abuses which the strong have ever been able to devise for the exploitation of the weak. The day's work often lasted as long as sixteen hours, and the drive was carried out by a merciless, personal supervision, supplemented by constant invectives and reinforced by the menace of club or imminent discharge, which meant famine. In an excess of zeal, the foreman outdid the harshness of the master, and even the adult workmen imitated him in their treatment of apprentices and helpers. The mercilessness which workmen manifested against the children of their own class and

even against their own children, in order "to have the trade enter into their body," as they used to say, proves that even the victims themselves regarded such treatment both as equitable and necessary.

The military system of management was adopted because it was the only example of leadership. Therefore, orders were indisputable, and that worker was the best who endured the most fatigue and, regardless of possible and even actual injury to himself, obeyed most blindly. This unfortunate military spirit permeated early industry to such an extent that the master, as a matter of course, expected absolute self-denial in his servants; and he was confirmed in the righteousness of such a belief by the silent submission of his servants themselves.

On account of the influence of guilds, which during the previous centuries had developed skill into the refinement of art, and on account of the skill required by the early machine, the worker had thoroughly to know his trade. There was no allowance for any fault of judgment or for any mistake due to discomfort, ignorance, unfitness, moral depression, or physical breakdown. Every failure or any lagging was regarded as blameworthy and punished accordingly.

The equipment of the earlier factories was, of course, rudimentary. The crudest welfare work was unknown; even light was scarcely provided. Yet it seems that inefficiency, caused by discomfort, and harmful effects, due to overwork and injurious exposure, were unnoticed. Disease was probably looked upon as a result of individual weakness or else of mysterious causes.

The entrepreneur was at the same time producer, financier, and merchant; and since he was uneducated, he had only common sense to guide him. His market was

limited in volume as well as in space. It is not surprising, therefore, that his undirected common sense led him into the policy of making the largest possible profit from the least volume of business. Since loyalty of labor was supposed to be unlimited, he could afford to control cost by keeping down wages. He failed to see that the prosperity of the working class would make prosperity for himself.

A survey of the abuses of the old school, which have heaped up grievances for a century, would be irrelevant here. Nevertheless, let us remark in passing that now we have to bear the consequences of the mistakes of our ancestors. Likewise, now we are preparing the future; with this difference, however, that, because ideas propagate rapidly now, the consequences of our mistakes fall on our own heads.

The outstanding feature of early servitude was that the early master motivated his servants by compulsion and naturally expected absolute submission, whereas circumstances and his shortsightedness logically led him to decrease cost by lowering wages. The trouble now is that the belief in the legitimacy of compulsion, self-denial, and in the commodity status of labor has not yet been completely eradicated, notwithstanding the tremendous changes which industry and society have undergone.

8. Reaction of Labor.—We have seen how industry was born in suffering. Yet it was of advantage to the sufferers; for, as bad as early working conditions were, industry was, nevertheless, a source of new opportunities. Consequently, as long as the supply of hands largely exceeded the demand, the employer, viewed in the light of his time, was often regarded as a benefactor, although viewed from our present ethical standards, he appears a

criminal. On the other hand, it would be a mistake to think that the working people of those days were as miserable as we should be if we were transported into such surroundings; for we have been many times assured by *bona fide* witnesses that those people lived cheerfully, though frugally. They did not complain of injustice because they did not feel injustice. All hardship was a matter of course. Nobody was able to point out means of improvement. The burden, albeit crushing, was carried without murmur because it was considered the legitimate price of living; and so the workers got through, unconscious of their heroism.

Little by little, however, industrial laborers felt that they were no longer primarily agricultural serfs favored with employment, but that their status had been changed by the new vocation. The evil effects of noxious conditions and of misery gradually became evident, and laborers expressed timid aspirations for betterment. When the point of equilibrium between the supply and demand of hands approached, these aspirations grew into demands; and wages had to be increased in order to attract more workers. This increase of wages initiated the misunderstanding which was destined to separate employer and employees ever more widely. The employer asked how it was possible for him to increase his expenses and how these miscreants dared to express dissatisfaction when they received twice as much wages as did their fathers who were contented. He decided to fight this evil spirit. Since that time, the fight has been going on; and attempts to settle what fair compensation and fair working conditions mean have been unsuccessful.

When the contrast between riches and misery made workers conscious of being exploited, they formulated

more and more definite claims. The first strikes attempted in support of their demands were repressed severely and then prohibited by law. The effect of these measures, however, was to kindle new fire in the hearts of the fighters. In spite of law, strikes grew in frequency; and, from about 1880 on, the consequences of strikes were rather tragic, marked, as they were, by destruction of factories, incendiarism, and revolutionary fighting in which hundreds lost their lives. Finally, under the impetus of growing socialism, the pressure of labor became more effective.

The socialistic propaganda has had the effect of bringing into the light of public opinion the inhumanity of industrial management and of revealing to the employers themselves a state of things which they had not seen. Ignorance, nervous exhaustion, frequency and seriousness of accidents, occupational diseases, occupational deformations of the body, degeneracy of the population of entire industrial districts, distress of old age, misery breeding tuberculosis and epidemics in unhealthy tenements, and the moral relaxation attached to any state of degradation, all these things made clear even to careless optimists some of the causes of social unrest and the reality of social disorder.

Wage earners have been massed in villages or have lived apart in separate quarters of cities; and so their life has become collective. By such aggregation, their common peculiarities have been intensified. Their aspirations, their interests, and their sufferings have become more evident; their complaints and grievances have become more bitter, for every one feels his pain more acutely when it is shared by a crowd. When it became evident that a large part of humanity was living under

the ban of society, a current of sympathy arose from all classes, and many people of all ranks assented to the strictures of socialism, if they did not agree with its program.

Meanwhile, employers made fortunes and formed a *bourgeoisie*, living apart. Notwithstanding their daily business intercourse with their employees, they have lost all effective spiritual contact with their employees, to whom they have become, in every respect, strangers. We hear a great deal about the so-called "good old time"; but its legend of goodness has been transmitted by the privileged class. The working people do not regret its passing.

9. **Paternalism.**—At first, the growing social unrest awoke among the masters a vague feeling of responsibility which suggested that milder treatment and inexpensive concessions might bring fat returns. Then began the period of paternalism, actually a system of compromises, the baselessness of which makes for instability of settlement. Indeed, paternalism makes the employees feel that grants are obtainable only under pressure; consequently, coercion appears to the workers an alluring means to extort endless concessions. Paternalism is an ineffective method of settlement. It bears the impress of charity because it is an arbitrary, indefinite mode of compensation; and it looks like the acknowledgment of a debt that is but partly paid. Moreover, in practice, the importance of the benefits of paternalism has been overemphasized, overadvertised, and persistently urged upon working people to their disgust. Frequently those benefits have been bestowed by such an unfriendly and arrogant hand that paternalism, instead of allaying and diminishing the existing discontent, has become an active

factor in promoting antagonism between employers and employees.

Most employers granted concessions grudgingly. It was only after improvements proved profitable that, step by step, they recognized the usefulness of comfort, heat, ventilation, light, safety devices, lavatories, lunch rooms, and other welfare works. Moreover, the paternal school so far failed to enter into the spirit of welfare work that the workers suspected these improvements in factory conditions were to be an excuse for further exactions. Workers are quick to resent favors, if favors look like substitutes for justice. Hence their deep-seated suspicion even toward sincere plans and substantial advantages.

Later, the requirements of legislatures and factory inspectors, under the pressure of public opinion, went much farther than the willing concessions of employers. The transformation was carried out so fast, and the ordinances were so drastic, particularly in France, that they laid an almost overwhelming burden on industrial enterprises and turned the scale of penalty against the employers. Now, in the leading countries, welfare works have attained a degree of refinement which, in some cases, may be termed excessive. The lavishness with which the requirements of hygiene, comfort, and safety have sometimes been met proves the anxiety of the leading employers to satisfy fully the working people. But satisfaction has not followed, because the concessions of paternalism are purely material and maintain class subjugation. It is vain to improve the cage if it yet remains a cage.

Paternalism lacks principle, since the share of labor consists of benevolent, arbitrary concessions. It fails to stimulate coöperation, since there is no community of

purpose nor consultation with employees. The struggle between employer and employee, terminating in the surrender of the former, breeds a feeling among working people that everything they have obtained has been fought for, that everything they contemplate obtaining has to be fought for, and that the more they fight the more they will get. An intense hatred necessarily results from such an attitude and constitutes a powerful factor of obstruction against the reconciliation of both parties. Hatred produces illusion of the worst sort. It pictures the slavery of labor by means of a skillful combination of present grievances with past abuses and causes workers willfully to ignore the progress already made in alleviating their situation. Hatred by itself becomes a motive for destructive action; it suggests only short cuts for quick solution, as though the whole problem consisted in thwarting the arbitrariness of employers.

10. Autocratic Leadership.—The new leading class whose position and whose ideals have been an outgrowth of early conditions of production and exchange, has developed along lines markedly different from the tendencies of democracy. It seems that the bourgeoisie simply assumed the spirit of autocracy which had been held by the feudal masters whom they had just overthrown. The bourgeoisie thought only to imitate feudal customs and maintain privileges. Therefore, it arrogated to itself the right of exclusive leadership in social and business affairs. Without any consideration for the working class which had to submit passively and was given no hearing whatever, it assumed the right to dictate laws and control society, to regulate conditions of work, rates of compensation, volume of production, and prices. It did this on the ground of being better informed and of having

greater ability to lead. Of course, leadership needs these elements as well as a certain freedom to develop the economic organization of society in new and unprecedented ways; but after the period of growth, standard conditions are attained; relations become more definite, knowledge diffuses, and little room is left for arbitrary action.

Autocratic leadership disregards altogether the human nature of the worker and the new collective spirit of the working class. It ignores human forces instead of utilizing them. When his factory was small and his prestige great, the employer dealt with his employees personally and could enforce strenuous labor. But, in large-scale industry, the increased personnel loses personal touch with the executive, whose prestige correspondingly decreases, because he is compelled to treat his employees in a wholesale fashion. The expert at the top decides and commands everything; the man at the bottom must obey passively whether he agrees or not with means and conditions. His opinions, desires, aspirations, even his capacity are entirely disregarded; somebody thinks for him and knows exactly what he should do and how he should do it. The doer is presumed to be a mere animated thing. By a stupendous contradiction, however, the doer is expected to coöperate heartily. He should be interested in his work though he knows not what he does; he should accept the conditions decided for him without his voice; and he should be contented with the compensation granted him without his assent.

The replacement of personal relationship by wholesale treatment has deprived workers of their personalities, checked development of skill, and nipped in the bud every tendency to initiative and coöperation. The lack of per-

sonal incentive for excellence has destroyed personality among workers and has leveled the strong man down to the weak. Autocratic leadership, of course, has failed to animate the new collectivity with a constructive spirit, but it has been unable to choke the collective spirit. The inevitable reaction of life has united the individuals to oppose their collective resistance to the constraining forces of autocratic capital. Capitalistic autocracy, therefore, is fully responsible for the destructive tendencies of labor.

The submerged employee has no reason to be efficient. Moreover, the mere opinion of the management is not sufficient to establish what is a fair day's work. The indifference of the employee and the inability of the employer to control has led to the practice of getting the most possible work for the least money which will keep the man on the job and of getting the most money for the least work which will keep the job for the man. Hence active antagonism and conflicting interests.

Under the growing pressure of labor, autocratic methods of management have been improved. The treatment of labor has been humanized, relations between these parties have sometimes become extremely polite, and systems of staff organization have been devised in order to remedy guesswork. Nevertheless, unrest persists, because the principle of compulsion and alienation has not been changed.

By keeping the worker ignorant of the purpose of his work, autocratic management instead of making work a means of life, has made it an end in itself. Thus, life has been deprived of spiritual meaning, and the collective spirit has become either destructive or materialistic. The inflated materialism of autocratic Germany has been

evident enough. We shall see elsewhere ¹ the destructive drift of syndicalism.

The military methods of autocratic leadership have been a most deplorable example for industrial organization to follow, since army and industry have different aims. The military purpose is destruction; the industrial, construction. Professor E. A. Ross showed this difference as follows: ²

When life and death are at stake or when tremendous consequences for weal or woe hinge on what is done in a few hours or even a few minutes, mistakes and failure must be eliminated at all costs. A fighting force, then, whether it is to cope with foes, mobs, fires, surf, floods, or epidemics, tends toward a military organization. Not only is literal and prompt obedience enforced by severe penalties, but, in order that the right thing may be done in the emergency, it must be ingrained as habit. Hence all organizations which are subject to crisis make much of drill. Military organization, just because it reached a high development as early as the middle of the Eighteenth Century, has unfortunately served as pattern for later types of organization which are not subject to the strain of crisis. Hence, in government bureaus and in business administration has prevailed the false idea that the usefulness of the subordinate to his superior consists in executing orders and furnishing reports. It is irrational, however, to repress the natural doubts, queries, or remonstrances of the intelligent and loyal subordinate in a non-fighting organization. In an industrial concern, there ought to be an interchange of thought between those who have to determine policies and those who may be called upon to carry them out. Such question or criticism ought not to be treated as if it were the murmur of a soldier under fire against the command of his officer. Again does or does not the task on hand put a

¹ See Chapter VII.

² E. A. Ross, "The Organization of Effort," *American Journal of Sociology*, July, 1916.

great strain on ordinary human nature? The more it does so the stricter will be the discipline, the harsher the penalties for disobedience. This is the culminating reason why military discipline is more methodical than any other, why rigid training is so insisted on for a man of so little skill as the common soldier. To build a habit that shall hold him steady before the cannon's mouth and cold steel—this is the reason for the endless drill, the rhythmic regularity, the automatic obedience exacted by the makers of armies.

These fundamental characteristics, which differentiate military from industrial organizations, and also the disastrous results of the intrusion of the methods of the former upon the latter, show the imminent necessity for new orientation. The promptings of fear and interest were utilized successfully by the autocratic masters when they had to influence isolated personalities; but, with collectivities, such incentives lose their effectiveness. We shall see elsewhere ⁸ how fearless and indifferent the multitude is to the forces and interests which motivate the individual. To-day, organization of thought and appeal to sentiments are the means of handling collectivities.

⁸ See Chapter XVIII.

CHAPTER IV

EVOLUTION OF MANAGEMENT

II. Traditional Management.—The productive ability of the early craftsman depended entirely upon his skill in handling tools; he embodied all the means of production. Hence the importance of apprenticeship and thorough all-around training. When machines were introduced, some specializations took place. In other words, the number of trades multiplied since the operating of each kind of machine constituted in itself a new calling. However, on account of the simplicity of those machines which aimed chiefly at an increase of production through greater motive power, the efficiency and possibilities of the machines still depended on the skill of the operatives.

The former employer was necessarily a master of his trade. He knew all about the resources and limitations of his equipment and men, and he set a high standard of skill and ability. The spur of personal interest developed in him a keenness for efficiency called the all-seeing "master's eye." The test of ability and fitness for management in the old school was to know how things were done. Even now in Europe, the study of mathematics, chemistry, mechanics, electricity, and the like is still supposed to develop managerial ability, while in America a thorough knowledge of the mill is essential to form a traditional manager. With the growth of enterprises, the

employer saw his personal limitations and was obliged to depute his executive powers to superintendents and foremen; but the principles of management remained unchanged.

Under the traditional system of management, the manager sends orders to the superintendents, upon whom he puts much of his responsibility. The superintendents, wearying themselves with the strenuous work of directing orders without an adequate system of records, in turn force the care of carrying out orders upon the foremen. The latter, overburdened by a range of duties almost beyond human capacity, are compelled to leave a large part of the work to the judgment and initiative of the workers, who are responsible for the actual operations. The feature of the traditional system is that foremen and workmen decide how, when, and where the job is to be done, after things are set in motion. This was perhaps practical in the small workshops of old times when the operation was a question of the personal skill of the worker; but, in the present stage of production, such practice has become obsolete, since it brings much of the burden of responsibility upon those who are least able to bear it.

12. Systematized Management.—The chaos of irregularity, mistakes, inefficiency, and misunderstandings which resulted from attempts at running large enterprises through traditional methods led to systematizing the management. Then came into existence the staff organization which is derived from military practice. The method is to divide the various functions of management among a body of specialists so that decisions are dictated from top to bottom. The system is methodical. Orders are given in writing and include adequate instructions.

Work is prepared ahead. Materials and tools are properly routed and disposed, and the cost of manufacturing is made up in detail. Nevertheless, systematized management is deficient because it ignores the individual worker as a human being and ignores his actual performance. The management takes the responsibility of what, when, and how to do; but it lacks standards of costs and of performance, upon which to base an intelligent judgment. As a consequence of this ignorance of the management as to what should be a fair day's work, the old driving methods have been maintained in order to keep the workers strenuously employed. The military school has mistaken strenuousness for efficiency. In reality strenuousness increases fatigue, which is by no means desired, instead of increasing output with less effort.

The opinions of the management, based solely upon the judgment of its officials, are imposed upon workers who are expected only to obey. The larger the organization grows, the more deputies stand between managers and workers; and the stranger they become to each other, because the workers are not treated as individuals and because the directing ideas of the manager are distorted by being passed through many minds. Although systematic organization is a real improvement in the technique of management, it fails to secure the good will of employees.

13. Scientific Management. — The stupendous growth of American industry has emphasized the defects of the old methods and has urged improvement in management. Americans have been pioneers in developing the management of business upon a scientific basis. As early as 1886, H. R. Towne emphasized the economic side of engineering. In 1891, F. A. Halsey introduced

his premium plan; and in 1903, Frederic W. Taylor first pointed out those principles of scientific management which have since been constantly studied and developed by American organizers, leading universities, colleges, and institutes.

The management of modern business is no longer in the hands of some potentate; it is divided and specialized. The managerial units consist generally of the corporate organization which plans and finances the business; the staff organization, concerned with all kinds of technicalities; the administrative organization, chiefly concerned with financing, auditing, accounting, and non-routine matters; and the line organization, concerned with production, selling, and records.

The chief executive, who is the most conspicuous figure of modern industry, is no longer a master mechanic and is no longer concerned with details and operations; he is concerned with policies. His new specialized function demands a high degree of ability for leadership because he must correlate the various activities of his different departments. Management has become a specialty quite distinct from the technique of production.

The organic part of scientific management establishes the conditions under which efficiency may develop. The fundamental features are as follows: the manager is an expert director of his forces who knows how to coördinate the different elements of his organization. The staff, instead of dictating from top to bottom, builds from the bottom. The workers are expected to give suggestions for improvement. Foremanship is functionalized. One department analyzes what is to be done; another plans how to do it; another dispatches the work as to time and place for operation; another gives instructions

and sets standard performances, piece rates, wages, and bonuses; another inspects, accepts, or rejects the work; and, finally, an employment department hires and fires, readjusts wages, and disciplines the personnel.

Foremanship, thus divided on the basis of functions, develops efficient specialists perfectly aware of the possibilities and limitations of their equipment and men. They plan the work ahead and dispatch it, in writing, from a central office, since planning and performance are separate functions. Materials, tools, and instructions are supplied ahead of the work. Men are selected to fit the work, trained properly for efficiency, and helped to fit themselves for higher wages in order to make them identify their interests with those of the management. Instructions and rewards are not matters of opinion; they are based upon records of facts upon which all must agree because the facts can be verified. Workers are given standard conditions, facilities, and tasks which are established by a careful analysis of the elements of production. A system of records keeps the manager in touch with each individual worker, thus enabling the former to proportion reward to efficiency. In this way, it has been possible to pay higher wages and reduce cost.

During recent years, scientific management has extended considerably, although its application is still far from being general. Notwithstanding the high degree of perfection which its technique has already developed, it has failed to secure the good will of the workers and does not seem to be able to alleviate industrial unrest, probably because this management by experts is a bureaucratic autocracy. The secrecy and exclusiveness which surround its functions irritate workers and prevent them from thinking and from taking any interest in

their work. But the main reason is that mere production of utilities lacks the universality of appeal which can induce coöperation. The abhorred cycle of the old order, work, eat, and sleep, has not yet been changed.

14. Foremanship.—The good will of the scientific manager is sometimes brought to naught by the arbitrariness of minor officials who are still imbued with the old idea of authority. The difficulty in forming foremen lies not so much in teaching them the technicalities of their respective functions as in getting them into the right professional relationship with the new spirit of management. Under the influence of the old practice, technique has been overemphasized; while the foreman's rôle as transmitter of spiritual force from the manager to the workers has often been neglected. To take the point of view that management and employees are to coöperate seems at first to require very little change in the conduct of an official; nevertheless, when we try to convert a man rooted in autocratic methods, the task demands almost a surgical operation. In his opinion, any scientific or democratic scheme undermines the whole organization because it lessens his authority. Every foreman is supposed to be an instructor, but he uses his authority to control men more often than his special knowledge to instruct them.

In daily practice, there are always different ways of doing things, each of which may present advantages and inconveniences. Somebody has to decide. This, of course, is the duty of the most expert; but, to-day, the expert must set aside his arbitrary judgment and make his decision according to the ideals of the firm and the records of experience. In addition to these limitations, the foreman must reconcile the exigencies of immediate

discipline with considerations due to the interests, feelings, conveniences, and abilities of the operatives. To the autocratic type of mind, it is foolish to attempt to associate authority with consent; that demands a *volte face* which is not in the power of every one to perform. The immediacy of results wanted in production keeps men in the well known path of traditional autocracy. Unless foremen are willing without resentment to accept suggestions offered by their subordinates, no system of management will ever be effective. Curiously enough, such an attitude is difficult to cultivate.

The autocratic master wrongly placed his ideal in the subjugation of men to his will. The modern leader inspired by the spirit of coöperation, places his ideals in common accomplishment and in common benefit. His policy consists in teaching and bringing into expression the best which is within his fellow men. It is not submission itself that provokes bitter resentment; it is the triumph of the master who has subjugated his subordinate. It is not the act to be performed that hurts; it is the wound to pride that induces antagonism as a reaction of pride.¹ Humiliation provokes desire to inflict in return greater humiliation. Life is essentially a struggle for superiority and triumph. All depends, therefore, upon our ideal of superiority. Subjugation, as an ideal attainment, results inevitably in antagonism. Coöperation obtains when the ideal of superiority is rightly placed in accomplishment; that is, when the triumph of men over one another is replaced by the triumph of men over things.

15. Employment Management.—I. A New Profession.—At the Ship Yard Employment Managers' Con-

¹ Felix Adler, "The Punishment of Individuals and of Peoples," *Standard*, December, 1918.

ference in Washington, November, 1917, Admiral Capps made this significant statement: ²

In 64 yards of which we have recently had accurate data, the turnover averaged 235 per cent, and probably was 300 per cent at the last report. You can well realize what this means in the volume of men passing through our works in the course of a year without any adequate return in labor.

Conditions of that sort, with a rate of replacement varying from 50 to 700 per cent and more, are constantly reported as a peculiar feature of American industry.

Investigations have shown that the expense of labor turnover in manufacturing plants averages from \$30 to \$50 per man. Including the cost of waste production and "overhead," it has been reported that in some cases the cost of hiring and firing amounted to as much as \$100 per man. This condition is alarming not only on account of the direct waste which it occasions and on account of the inefficiency which it causes, but especially on account of the moral effect of turnover upon the workers. It is self-evident, indeed, that no organization of moral forces, no *esprit de corps*, no unity of purpose, no ideal can permeate a chance association of always-changing, disparate personalities. We shall see ³ why a heterogeneous collectivity is most mobile, violent, and difficult to manage; why it is always prompt to respond to any subversive suggestion, and why it is inaccessible to reason.

As a consequence of this situation: ⁴

A new movement and the recognition of a new profession have developed within the past five years. The movement is known as the Employment Managers' Associations, which

² *Industrial Management*, March, 1918.

³ See Chapter XVIII.

⁴ Roy W. Kelly, *Hiring the Worker*. Introduction by Meyer Bloomfield.

are to be found either full grown or in process of starting, from Boston to San Francisco. The new profession is that of employment manager or supervisor of personnel, and provision for such executive is to be found in a rapidly increasing number of large as well as small industrial and commercial establishments.

Whatever may have been the genius and human impulse of the men who have revolutionized modern methods of management either as progressive employers, managers, or system builders and experts, the fact remains that what may be termed labor management, the handling "the human problem," has received far less attention, skill, and insight than have the material factors in organization. Had a fraction of the imagination been bestowed on problems of the working force and on questions of constructive relationship with employees, which has been so successfully applied to materials, methods, and machinery, we should have been farther along than we are to-day in the matter of enlightened labor management and industrial relationship. There can be no sound organization where questions affecting the working force are relegated to a subordinate, or treated as a mere incident in business enterprise. The truth, fortunately recognized by an increasing number of important industrial leaders, is that the man problem in organization is the really vital one.

In the first place, the fact must be firmly grasped that handling employees is a serious business. To the employment department, we must finally look for a solution. And above everything else we must look to the character, training, equipment, and function of the man who handles the personnel.

The quality of the working force determines in the final analysis the quality of the organization, of its product, of its success.

The whole drift of the time is in the direction of greater attention to the proper selection, supervision, and development of the industrial worker. The question is no longer an inferior man's job. The employment function is one of the vital departments of a business.

The problem of employment involves three objects: attracting desirable applicants, selecting applicants, and retaining employees.

One function of the employment manager is to interview and welcome the applicant before engagement is made definite and to direct his attention to the general conditions of the concern. Sometimes by a visit to the plant and an explanation of the policies of the house, the manager can win the good will of the new employee. He interviews every employee who leaves, makes a record of his case, and bids him farewell. His function is primarily to investigate rather than settle differences; and it is found in practice that his intervention is beneficial, because he can explain to the parties concerned how the policies of the management apply to their cases. Although employment management is still new, it has already rendered substantial services in pointing out causes of dissatisfaction, in proposing remedies, and in decreasing the friction inherent in all functions. Notwithstanding, the largest achievements in that field have yet to be made. A great advantage of the employment department is that in such an organization the worker is really the employee of the company, instead of being, as under the old system, practically the employee of the foreman.

Now, the tendency is to extend the idea beyond the plant and organize the labor market under the joint supervision and consent of organizations of employers and employed. "For," says Professor J. R. Commons,⁵ "only in this way can there be permanently maintained the first great essential in regularizing employment in the interest of both labor and the nation, a national em-

⁵ J. R. Commons, *Good-Will in Industry*.

ployment system enjoying monopoly as complete as that of the post office."

II. Selection.—The necessity for selection of employees was suggested by the constant experience that individuals, who had proved quite undesirable employees on a certain job, succeeded when they were transferred to others. In the first case, they were either physical, mental, or moral misfits or were simply untrained and unable to adapt themselves to the circumstances or to the foremen. As a consequence, their work suffered either in quality or in quantity or in both. These conditions breed discontent, indifference, and naturally lead to leaving or to discharge; whereas fitness makes contented employees, ready to coöperate with the right management.

It is interesting, therefore, to know whether the high rate of turnover is due to misfit. J. D. Hackett asserted: ⁶

In an examination of 100,000 cases of the reason for leaving work in some of the more representative plants of the country, it was recently found that 74.6 per cent quit, 12.2 per cent were laid off, and 13.2 per cent were discharged.

In spite of certain reservations made by Mr. J. D. Hackett as to the exactness of his figures, the disproportion between the quitting and the discharged does not indicate general inability to work; for, in such a case, the proportion should be reversed. The chief reason for a considerable turnover is consequently not a misfit to the job, but the unrest caused by the fundamental

⁶ *Industrial Management*, March, 1918.

lack of harmony which actually exists between working and living conditions and the aspirations of workpeople. Nevertheless, the question of selection deserves careful attention.

CHAPTER V

COMPETITION VS. MONOPOLY

16. Competition.—Competition is the outgrowth of large-scale production. The more production is specialized, the harder it is to find a market for the product. Increasing competition has forced manufacturers constantly to improve their products and seek new ways for decreasing cost and securing sales. In that sense, competition is justly termed the life of trade.

Yet competition has its unmitigated evil. When a larger supply of money comes into circulation, consumption increases; enhanced demand brings up prices and promises prosperity. Then the individual manufacturer expands his business in order to take advantage of attractive market conditions. So long as the market is not saturated with goods, the limit of demand is not suspected and stocking goes on. Such unconcerted activity of traders, based upon unfounded optimism and secrecy, leads inevitably to overproduction, the eventual effect of which is financial catastrophe. A crisis ensues, followed by a long period of depression.

During dull times, the evils of competition become even more apparent. The manufacturer, harassed by money stringency and saturation of the market, struggles for mere existence. His fixed charges continue. He will sell goods at any price that will bring him more than his fixed charges. Powerful concerns undersell

smaller competitors in order to put them out of business, and a price war undermines trade. Unemployment, of course, increases. As to the economic effect on labor, I quote the following fine picture from A. H. Church:¹

The struggle should be a struggle of brain and enterprise, but, too frequently, the victory is sought by cutting down the due and usual price of labor to the utmost that labor will stand. This is a process wholly destructive, and there is hardly a single argument, either economic or moral, that can be used in its favor. Suppose the original employer to be a man who has gathered a contented body of employees round him and created good conditions for their daily work; still there will come a day when, if his competitors are successful in cutting the price of labor, he will have to follow suit or go out of business. Meantime, by the substitution of poorly paid and discontented labor for properly paid and intelligent labor, the industry will suffer, and its product will almost certainly become degraded from its former standard of excellence. The public will be worse served by the products of the industry, and it is difficult to see who has benefited at all. For though the originator of the price-cutting may reap a temporary advantage, still he cannot keep it any longer than it takes the other employers to follow suit. Its ultimate tendency always is to drive out the best class of employers from a trade and the best class of labor, and to replace the former by sweaters and the latter by a proletariat amongst whom the wildest doctrines of social upheaval find their natural breeding ground. This is, of course, most likely to happen in unorganized industries, and those not requiring much skill either in administration or labor. The employer who undertakes to force down the price of labor, or allows his subordinates to do so, is then first of all the worst kind of enemy to his brother employers, as well as a bad citizen. It is to be feared that this point is but imperfectly appreciated by those who have suffered from the aggressiveness of unions, but a little

¹ A. H. Church, *The Science and Practice of Management*.

thought will show that there is no escape from the truth of the proposition. A further and more impersonal effect is that the purchasing power of one section of the people has been restricted and this restriction is felt, however microscopically, throughout all industry.

Labor troubles usually follow such economic disturbances and they are encouraged by competition because, as Professor Meade declared:²

Few employers feel safe in standing out against the union and thus precipitating a strike, for fear lest some of their competitors should grant the demands, keep their mills running, and get the orders which the strike prevented them from executing or accepting, and in the profit of which these competitors might find ample compensation for the concessions in wages and hours which had been made to secure this increased business from less complaisant rivals.

That is, competition prevents common action among employers against what they believe to be the unreasonable demands of labor unions. Thus the struggle is maintained between the individual employer and his personnel and there is no possibility of settlement.

17. Combinations.—At the close of the industrial depression, ending in 1898, it became evident that free competition is the death of profits; and it was generally felt that the life of trade is coöperation. As a consequence, hardly an industry escaped consolidation. Failure of unrestricted competition gave rise to the tendency toward centralized control of industries.

The combination of kindred industries offered a most promising field for economy. Maintenance of profitable prices was not the sole advantage. A series of wastes was to be eliminated, such as duplication in selling and

² E. S. Meade, *Trust Finance*.

advertising expenses and in special equipment and personnel. A more constant operation of special, costly machinery was contemplated. Finally, a centralized control permitted more liberal policies as to labor, more advantages in dealing with unions, and the reduction of fluctuations, so far as they are controllable. A great argument in favor of combination has been that overproduction of commodities, due to ignorance of conditions, secrecy, and misrepresentation will cease; and with it will cease one of the causes of crises. Of course, such combinations presented disadvantages. Made in restraint of trade, they naturally aroused public hostility; hence the so-called trust problem. "The basis of antagonism to trusts," says Professor Meade, is "its real or fancied ability to charge extortionate prices; its influence in politics, the excessive capitalization of many of the trusts, and the stock manipulations."

Whereas the greater part of our industrial system still continues competitive, on account of the interdependence of industries, the area of the power of capitalistic combinations is growing. The evils of combinations, however, are being modified by a continual process of adaptation, as we may infer from Professor H. R. Seager:³

If effective measures are taken to prevent rate discriminations on the part of the transportation companies and price discriminations and unfair contracts with retailers on the part of the trusts themselves, it is believed that the movement toward combinations will be checked, and that such combinations as continue to be effected will have back of them reasons not opposed to public policy. For behind the trust movement are more solid and creditable motives

³ H. R. Seager, *Principles of Economics*.

than the activity of unscrupulous promoters and the monopoly hunger of greedy manufacturers. The economies of combination are in many cases both real and substantial, and a public policy that opposes all forms of combination is as unenlightened as it must in the long run be futile. The most effective weapon wielded by the public for dealing with the trusts, as with other actual and potential monopolies, is the consumer's power to substitute other goods for those which the trust enhances in price. As consumption and processes of production become more varied in their range, this power acquires wider scope. It already effectually precludes excessive profits to any very large number of businesses and limits the monopoly problem to those few services and commodities which remain indispensable to civilized existence, such as transportation facilities, coal, iron, petroleum, salt, sugar, etc.

And elsewhere he says: ⁴

I do not believe that many trusts will show a monopolistic character, even though the fullest liberty be given to the combination movement. It is for that reason that I do not look forward to an indefinite extension of state industries.

18. Monopoly.—The great advantage of combination is that it follows the law of industrial progress; namely, a greater division of labor and a centralized coördination of specialized efforts. One result is increased productive power; another should be a corresponding advance in the well-being of the individual members of society. This ideal, unfortunately, is not to be attained through combinations alone.

Labor does not see its welfare increased in proportion to its tenfold magnified productivity. It has become conscious that unfair manipulation is being wrought at

⁴H. R. Seager, *Government Regulation of Big Business in the Future*.

its expense. Neither machinery, specialization, coöperation, nor combination brings prosperity or comfort to that third of the population which still lives hopeless under sub-standard conditions. Consequently, labor universalizes its opposition to capital. It criticizes the monopoly of wealth accumulated by the past, from whose enjoyment labor has been excluded, as well as the ill distribution of wealth actually produced. The present disequilibrium of economic forces has engendered reactions which tend to distribute more equitably among different groups of society the power of monopoly. Against the combinations of capital stand three competing monopolies:

1. Trade unions, which tend to monopolize labor.
2. State socialism, which substitutes public for private monopoly.
3. Coöperative societies, which aim to distribute the power of monopoly among the consumers themselves.

These movements are considered separately in the following chapters. The growth of monopolies, in different directions, indicates that the present tendency is not to abolish monopoly but to improve its methods and retain its advantages. The Federal Trade Commission and the Interstate Commerce Commission aim at correcting monopoly abuses through publicity and prosecution. Moreover, legislation is ever enlarging the field of government control over industrial combines, in order to limit, for the benefit of the community, the privileges of capitalistic monopoly. On the other hand, the threatening strikes on the American railways in 1916 and 1917 and the actual strike of coal miners made everybody feel that the monopoly of labor can affect the community. The acute situations which these strikes created showed

that some limitation also must be imposed upon the monopoly of labor.

19. Present Tendencies.—A survey of the present stage in evolution of modern capitalism does not warrant the belief that any one system of control of trade and industry will prevail and exclude others. Every system has its advantages and will develop along the line which suits it best and, by an experimental process of adaptation to conditions, will undergo such modifications as will minimize conflicts of interests. In other words, the conflict of interests will approach more nearly a condition of equilibrium.

Present tendencies may be outlined as follows:

1. Free competition will always remain the source of progress. It offers the natural field for men of initiative or of special ability, that is, for pioneers. It applies best to those special industries which are subject to large fluctuations, and finally it is indispensable to industries which are still in the experimental stage or in process of development.

2. Combinations seem to be limited to production and distribution of staples, such as:

(a) Steel, which is not for general consumption.

(b) Coal and oil, which are for general consumption, but the production of which is more important than distribution.

3. Coöperative societies which are best for the enterprise of distribution of staples for general consumption and the production of those standardized staples which do not involve large capital.

4. Government operation which is naturally restricted to public services for they vitally concern the community;

such as railroads, street railways, electricity, gas, water, wharves.

Since an industry in the course of its development is apt to pass from one of these systems to another, experience alone can determine the actual classification of a given industry at any time and place. We shall see in the following chapters the influence of state socialism and coöperative societies upon the good will of labor.

CHAPTER VI

TRADE UNIONS

20. Origin of Unionism.—The labor problem originated from two conflicting points of view as to the true status of labor in our industrial system. The employer said: "Labor is a commodity which I have a right to purchase in the open market at as low a figure as I can." The laborer said: "I am a copartner with capital in industry, and as a copartner I am entitled to be heard on the question of how industry shall be conducted; that is, on the hours of work and the questions of physical safety and insurance. I am also entitled to have a voice as to my share in the proceeds of industry."

It is the immediate interest of the employer to get, within reasonable limits, all that he can out of his men for as low wages as possible; while it is the interest of the employee to get for his services as high a return as he can. With the growth and rapid concentration of capital, labor soon saw that it must accept the commodity status assigned to it by capital or combine as capital had done, and so, through the increased power thus gained, assert its claims. The result has been the rise of the institution known as the trade union.

The union stands as a protest against reducing wages to the mere cost of living, which obtains under individual bargaining. As Dr. Frank J. Warne pointed out:¹

¹ F. J. Warne, *The Coal Mine Workers*.

The trade union not only emphasizes higher money wages for the working classes, but it seeks to secure for them better homes, not merely better houses, lower prices for the commodities they consume, more opportunities for their children in the schoolhouse, better clothes and food for their wives and children, greater safeguard against injury and death in hazardous employments, insurance and relief benefits, fewer hours of work, and innumerable other "rights" which they do not now enjoy and which will ever be denied to them if they themselves do not control, through the trade union, the forces which are ever at work to bring about low wages and adverse conditions of employment.

Under a free competitive system in the labor market, as would be the case were there no unions, the man with the lower standard of living must displace the man with the high standard. This is not necessarily the fault of the employer, who must get his labor as cheaply as his competitors or be forced out of business. The union is the only method left to labor, whereby it can combat the economic forces which tend to force wages down.

Professor E. S. Meade explains the philosophy of the union as follows: ²

Under the conditions of modern industry where all the tools of production are in the hands of one group, the single-handed individual laborer is not in a position to make a fair bargain for his wages. A fair bargain implies more or less of equality between those making it. A man who is in a position where he must either take what is offered him or do without, is not in any real sense making a bargain or contract. The union steps in at this point to place labor in a position where it can bargain for itself, for just in proportion as the laborers stand shoulder to shoulder can they make their demands known and felt.

Among the so-called abuses of the union is the policy of the closed shop. It is impossible to pass any general verdict

² E. S. Meade, *Economics*.

on the justice of this policy. Most Americans are inclined to condemn it offhand as an attempt to deprive the non-union of his "sacred right to work." They forget that the union man enforces the closed shop policy by an exercise of his "sacred right to quit work." Two equally "sacred and unalienable rights" clash in the contest. The philosophy of social expediency and not the philosophy of rights can decide such a question. There is nothing inherently wrong in the policy of a closed shop provided it is maintained for lawful ends, chief of which is the guarantee of an American standard of living to American workmen.

The by-laws ruling groups of men have always been dictated under the pressure of urgent necessity. Standards of conduct imposed upon their members by groups of brokers, lawyers, physicians, priests, etc., are all the more pressing because the very existence of the groups depends upon the observance of these standards. Consequently, the union follows the general rule of group-formation by imposing a certain standard of discipline and self-denial upon working people who, in turn, secure the existence of the union—the living expression of their group—by accepting submissively the sacrifice of their individual liberty. It is quite natural that union men look upon non-union men as social malefactors.

21. The Struggle of Unions.—This is no place to repeat the history of labor troubles,⁸ but we shall try to discover the cause of antagonism between employers and unions. In reality, the parties in the contest have been four: on the one hand, the individual employer fighting for his immediate existence and his competitors trying to annihilate him; and, on the other hand, the unions fighting against the employer for the advancement of

⁸ See a criticism of unions in *The Survey*, vol. xxxiii, December, 1914.

the working class and non-union men individually competing with one another for an immediate living.

The essential reason for opposing unions lies in their destructive character, which results from combating the individual employer who stands for "the economic forces which tend to force wages down." Whereas the industrial group of employers is responsible for the general situation of labor, yet this group of employers is not organized and represented so as to bargain collectively with the group of labor.

Employers and unions do not struggle on the same plane. It is impossible for the individual employer, isolated among hostile economic forces, to meet the claims of labor as a class. As a consequence, employers were compelled to associate in order to secure their existence against the rising tide of coercion from organized labor. By the usual concordance of phenomena, since the primary movement was destructive, the reaction against it was destructive. Thus came into existence class struggle, characterized by its spirit of hate. Employers' associations fought labor organizations with their own weapons, matching the lockout against the strike, the blacklist against the boycott, and the labor bureau against the unfair list of the trade-union journals. This state of warfare has naturally proved to be very undesirable to all: the employers, the employees, and the public; and, as a consequence, different schemes, such as collective bargaining and arbitration, have been proposed to settle labor disputes.

Now, on the ground of reciprocity, the recognition of the right to organize is rapidly progressing. Since capital may combine and speak through representatives, labor also may unite its strength and defend its interests

through its representatives. But the choice of representatives of labor is a difficult question which still prevents employers from agreeing upon the method of making collective bargaining effective.

Occupational unions generally have similar interests and claims against employers, although some unions are immediately competitive, such as those between men and women or those between machinists and automatic-machine operators. But the economic claims against industry, of unions of different trades, are frankly competitive. When collective bargaining shall have received a more general application, wages and hours will appear to labor in their real significance, as elements of cost of production and consequently of cost of living, and will transfer the conflict of interests to the different groups of labor.

22. American Trade Unionism.—I. Political Attitude.—There are two ways in which labor can unite its forces to secure advancement: by forming trade unions or by forming a political party. Both have been followed abroad; but, in America, unionism has had by far the largest development. The American Federation of Labor, dwelling upon its policy of keeping aloof from politics, said, to the Senate Committee on Education and Labor, in its report presented on January 15, 1919:

The disastrous experience of labor in America with political parties of its own amply justified the American Federation of Labor's non-partisan political policy.

But two warring factions toward political action have long existed in the ranks of organized labor in America. At a convention held in Chicago in November, 1919, the radical faction organized a new national labor party.

This convention was a rank-and-file movement made up of delegates from local or central organizations in thirty-five states. The resolutions of the new party read as follows:

The Labor party was organized to assemble into a new majority the men and women who work but who have been scattered as helpless minorities in the old parties under the leadership of the confidence men of big business.

These confidence men, by exploitation, rob the workers of the product of their activities and use the huge profits thus gained to finance the old political parties, by which they gain and keep control of the Government. They withhold money from the worker and use it to make him pay for his own defeat.

Labor is aware of this, and throughout the world the workers have reached the determination to reverse this condition and take control of their own lives and their own Government.

In this country this can and must be achieved peacefully by the workers uniting and marching in unbroken phalanx to the ballot boxes. It is the mission of the Labor party to bring this to pass.

II. Policies.—The conservative wing of the American Federation of Labor thinks that the fundamental error upon which political action is based consists in crediting government with the power to solve the problems that affect the relations between employer and employees. Therefore, it appeals to the spirit of independence and to a realization of the truth that the workers must depend upon themselves for the improvement of the conditions of labor. Their power inheres in labor, not in the ballot; it is in the power to produce; and, in the last analysis, the power to stop production. To conserve and concentrate that power is the first and last duty of

trade-unionism. Samuel Gompers declared its policies as follows: ⁴

In improving the conditions from day to day the organized labor movement has no "fixed program" for human progress. We do not set any particular standard, but work for the best possible conditions immediately obtainable for the workers. When they are obtained, then we strive for better. . . . The movement of the working people, whether under the A. F. of L. or not, will simply follow the human impulse for improvement in conditions wherever that may lead; and so they will go without aiming at any theoretical goal. Human impulse for self-betterment will lead constantly to the material, physical, social, and moral betterment of the people. We decline to commit our labor movement to any species of speculative philosophy.

When a fair and reasonable opportunity presents itself for continuous improvement in the conditions of the workers, the movement of the worker must necessarily go on and will go on. It will not be dominated by the so-called intellectuals or "butters-in." The working class movement to be most effective must be conducted by the workers themselves. It is conducted against those who stand in the way, hostile to the advancement of conditions for the working people. It is conducted against those employers who refuse to understand modern industrial conditions and the constant need for the advancement of the working people and who refuse to accede to the demands of the workers.

The American Federation of Labor, in number by far the most important labor organization, is the conservative body. Briefly stated, it stands for: (1) the eight-hour day, (2) the right to organize and bargain collectively, (3) a progressive advancement of wages, and (4) the adjustment of wages to the cost of living.

The other organizations that claim to speak for labor are much less important. Their radicalism runs from

⁴ Samuel Gompers, *The American Labor Movement*.

government ownership of public utilities to Bolshevism. The more radical element in organized labor is represented by the Reading (Va.) *Labor Advocate*, which declared:⁵

American delegates at any labor conference should insistently stand for the complete socialization of industry, the substitution of industrial democracy for political democracy along lines similar to the Russian *Soviet* Government, and the elimination of the profit system of production.

The policy of these radical organizations, which consists in creating chronic trouble, has often been confused with the propaganda of the occupational unions; and hence these have been mistakenly charged with all labor unrest.

III. New Status.—Organized labor in occupational unions has come out of the war greatly strengthened. In two years, the membership in unions affiliated with the American Federation of Labor increased from 2,000,000 to 3,000,000. At the outset of the war, the government found itself obliged to encourage organization of labor. The War Labor Board, moreover, declared three rights of labor: (1) to organize and bargain collectively, (2) to a limited number of hours of labor, and (3) to a living wage. As a result, collective bargaining has extended independently of the growth of unions.

⁵ *Literary Digest* for February 8, 1919.

CHAPTER VII

SOCIALISM

23. Origin of Socialism.—During the early development of our industry, free competition created a situation in which excessive concentration of wealth contrasted with extreme misery. When it became evident that the conditions of labor did not improve with the increase of production, it was felt that something was wrong with the distribution of wealth. Then, reformers, among whom were Fourier, Saint Simon, and Owen, imagined Utopian social orders in which everything was as it ought to be. They even established different communist experiments, which inspired great hopes of social regeneration, but which soon proved to be impracticable. In 1848, the "Communist Manifesto" of Karl Marx and F. Engels rekindled the faith in a better world through an ideal of larger citizenship. In this first declaration of an International Workingmen Party, the authors made this famous appeal which has become the motto of propagandists:

"The proletariat have nothing to lose but their chains. They have a world to win. Workingmen of all countries unite!"

The "Communist Manifesto" is the cornerstone of modern socialism. Socialists say that private ownership of the tools of production, formerly the means of securing to the worker the ownership of his product, has

become the means by which capitalists exploit workers. Consequently, since all commodities to-day are socially produced, they propose an industrial system in which land and means of production and distribution shall be socially owned and democratically controlled so that all rents, interests, and profits shall benefit society instead of benefiting individuals. This is the ideal about which all socialists generally agree. As to the social program and means of its realization, socialists are divided into different factions. From the beginning, two tendencies have distinguished this movement: the reformist and the revolutionist.

The reformists are more numerous. In the process of evolution, they see successive social effects, progressively engendered by new ideas. They conceive the transformation of society as a slow but uninterrupted series of modifications taking place under the influence of time, environment, and stimuli. They admit the principle of historical continuity.

The revolutionists are more violent. At first, they conceived evolution as a result of a sudden revolution. But later they came to conceive evolution as a continuous action which constantly increases the class struggle and which aggravates, by continually renewed conflicts, the differences between labor and the rest of society. They assert that the consummation must be brought about by the accumulation of partial catastrophes. They admit the principle of historical discontinuity.

24. Political Socialism:—I. *Evolution of Dogmatism into Opportunism.*—In the beginning of propaganda, socialism was a simple, religious belief in immediate redemption of society through revolutionary replacement of private ownership by government owner-

HUMAN ENGINEERING

of all means of production. This being inspired violent attempts to get power, but socialism very unpopular and long hindrance to development. Unsuccess forced the leaders to accept more acceptable means of propaganda. They realized that without acquiring political power they could not effect the passing of capitalistic into socialist society. Then they got a steady increase in the adherents, recruited from all walks of life, and formed a strong political party, which succeeded in bringing social problems to the attention of the world. One who, in France, was an early proponent of this theory, conceived society as a rigid, military, state organization. A powerful staff was to concentrate the power and direct docile disciplined masses. He believed men were equal and unselfish and that, if free, they would sacrifice self-interest for the good of all and bring about a state of perfect equality, and fraternity.

About 1900, socialists were dogmatic and believed in the possibility of a quick and simple transformation of society, but later experience has made them much more realistic. Now, although they hold a definite program, they have adopted a reformist attitude of guiding evolution. They have come to realize that such transformation cannot be effected by decrees, but only by the slow process of changing the mind of people and improving their environment. Moreover, belief in equality and fraternity has been very much shattered.

Platform of Modern Socialism.—It is interesting to know what socialists at present stand for. The pro-

See John Spargo, *Socialism*.



gram of the Socialist Party of the United States, adopted by the National Convention of May, 1912, among other things, contains the following:

The capitalistic system has outgrown its historical function, and has become incapable of meeting the problems now confronting society. We denounce this outgrown system as incompetent and corrupt and the source of unspeakable misery and suffering to the whole working class. We declare, therefore, that the longer sufferance of these conditions is impossible and we propose to end them all. We declare them to be the product of the present system in which industry is carried on for private greed, instead of for the welfare of society. We declare, furthermore, that for these evils there will be and can be no remedy and no substantial relief except through socialism, under which industry will be carried on for the common good and every worker receive the full value of the wealth he creates.

Society is divided into warring groups and classes, based upon material interests. Fundamentally, the struggle is a conflict between the two main classes, one of which, the capitalistic class, owns the means of production, and the other, the working class, must use these means of production on terms dictated by the owners.

The program of collective ownership reads as follows :

1. The collective ownership and democratic management of railroads, wire and wireless telegraphs and telephones, express services, steamboat lines, and all other social means of transportation and communication, and of all large scale industries.
2. The immediate acquirement by the municipalities, the states, or the federal government of all grain elevators, stock yards, storage warehouses, and other distributing agencies in order to reduce the present extortionate cost of living.
3. The extension of the public domain to include mines, quarries, oil wells, forests, and water-power.

4. The further conservation and development of natural resources for the use and benefit of all the people.
5. The collective ownership of land wherever practicable, and in cases where such ownership is impracticable, the appropriation by taxation of the annual rental value of all land held for speculation or exploitation.
6. The collective ownership and democratic management of the banking and currency system.

Then follows a program of industrial demands:²

The conservation of human resources, particularly of the lives and well-being of the workers and their families:

1. By shortening the workday in keeping with the increased productiveness of machinery.
2. By securing to every worker a rest period of not less than a day and a half each week.
3. By securing more effective inspection of workshops, factories, and mines.
4. By forbidding the employment of children under 16 years of age.
5. By the coöperative organization of the industries in the federal penitentiaries, for the benefit of the convicts and their dependents.
6. By forbidding the interstate transportation of the products of child labor, of convict labor, and of all uninspected factories and mines.
7. By abolishing the profit system in government work and substituting either the direct hire of labor or the awarding of contracts to coöperative groups of workers.
8. By establishing minimum wage scales.
9. By abolishing official charity and substituting a non-contributory system of old-age pensions, a general system of insurance by the state of all its members against unemployment and invalidism, and a system of compulsory insurance by employers of their workers, without cost to the latter, against industrial diseases, accidents, and death.

²W. E. Walling, *The Socialism of To-day*.

Prominent American socialists have recently repudiated the party on the charge that its doctrines have become contaminated with the principles of syndicalism.⁸

25. Revolutionary Syndicalism:—I. Origin.—The evolution of French socialism involves three periods:

1. During the first period, from 1873 up to 1885, our modern society, based upon the right of property, free competition and liberty of contract, was opposed by dogmatic socialism only, to which Karl Marx was supposed to have given final, scientific form. In spite of their divisions in five different groups, all socialists agreed upon the following fundamental points: monopoly of the tools of production by the state, acquisition of political power by the laboring class, and creation of an international union of labor.

2. The French law of 1884 authorized laborers as well as employers to associate into occupational syndicates for the study and defense of their common economic, industrial, commercial, and agricultural interests. From that time, many such syndicates were founded and united into the National Federation of Syndicates, the initial purpose of which was mutual assistance in the defense of their common interests. In fact, these young associations had no clear ideas as to their interests or the ways and means of defense; and, as a consequence, they accepted the guidance of experienced politicians. These men eagerly sought their votes, and so the Federation became the trade branch of the French Socialist Party and remained so up to 1892.

From 1890 on, the syndicates originated a reaction against the depressing domination of the Socialist Party composed of people of all classes, rejected the tutelage of

⁸ *Current Opinion* for August, 1918.

the politicians, and wanted only workingmen as leaders. By 1892, the separation had been completed and syndicalism had become autonomous and independent of any political party. Its organization is the General Confederation of Labor (Confédération Générale du Travail, or "C. G. T."), founded in 1895.

3. The third period, beginning in 1900, is marked by the formation of a staff of capable leaders who have given syndicalism a most powerful impetus and have developed among the workers energy, education for mutual help, pugnacity and class consciousness. Syndicalists have rejected all the attempts of the government towards coalition and have remained frankly separated from the government and from politics.

At first, the "C. G. T." had no definite platform, but a political event determined its policy.

In 1899, a socialist representative was made a minister. But when it became evident that he turned socialist opposition into ministerial solidarity, leaders of labor observed that the penetration of socialists into government did not change working conditions, that class relations remained the same, and that the means of coercion (army, police, justice, and administration) operated just as they did before. So labor inferred that it had nothing to expect from politics or government and that it had to depend upon itself alone. That is why the "C. G. T." has broken definitely all connections with democracy and created a new revolutionary movement called syndicalism.

II. Characteristics of Syndicalism.—Syndicalism is not mutualist, socialist, or anarchist; it is a separate movement. It is the most daring manifestation of the power of the laboring class and brings to the world a

new situation. It is not founded upon any preconceived plan or formula; with the sole view of liberating labor, it takes daily advantage of experience and adapts action to the circumstances. It is characterized by constant adaptation of its action to actual needs; it develops its life by living. It is not bound by any theory. It is exclusively experimental. Its philosophy is a philosophy of action. Time, circumstances, experience and the industry of the men will show what to do and how to arrange for the best. The right institutions will spring up under the pressure of circumstances and needs.

The aims of syndicalism are defined by the statute of the General Confederation of Labor as follows:

Article 1. Syndicalism associates the wage-earners for the defense of their moral, material, and economic interests.

Article 2. It associates independently of all political parties all laborers who are conscious of the fight to be carried on for the destruction of the wage system and of the employment system as well.

It aims also at the suppression of the employer; and, in place of the present régime of constraint, at one of liberty. To-day, capital pays labor, but in the new order, capital will work in the service of labor and thence will receive its reward.

Syndicalists know that unity of action is indispensable, but think that instead of being dictated by a master, it must spring from spontaneous coöperation of workers. Therefore, they are bound to transform the capitalistic workshop into the socialistic, masterless workshop. At present, syndicalism groups laborers into their natural associations. It attempts their moral education, develops their class consciousness and teaches them how to use their power for the class struggle. Meanwhile, laborers

are to weaken progressively the authority of the employer and compel him to improve his workshop. They watch the fruit, help it mature, and will pick it when the time comes. They recognize the imperative necessity of improving production, because it is later to pass into their hands.

The traditional state is a tyrannical instrument for oppression of labor, and since it represents the non-productive part of society and defends the capitalistic employer, it must disappear. There is no use trying to improve it.

Revolutionary syndicalism is better understood from its policies and tactics, which are summarized as follows:

1. Recourse to Energetic Minorities. The "C. G. T." flatly repudiates the majority, formed chiefly of human sheep not yet animated by the spirit of revolt. Syndicalist action is the expression of the consciousness of a minority of revolted militants, which arrogates to itself the right to lead and awaken the mass of neutral followers. Here numbers and votes do not make law; the power of will creates a new law—the law of labor. The strength of the "C. G. T." lies less in the number of its members than in the activity, energy, discipline, audacity, faith in success, enthusiastic conviction, and unquestionable devotion to the cause of the leaders. They constitute an élite ready for every violence and for every sacrifice. They go ahead, regardless of the reluctance of their followers.

2. Direct Action. Syndicalists wish to settle their own affairs through their own efforts and not through representatives. There must be merciless and ceaseless war between capital and labor; and, instead of smoothing friction, labor must stimulate the conflict. Constantly fight; maintain the spirit of revolt already awakened among the working people; never be satisfied, are their

motatoes. The duty of workers is to shake off their yoke by daily effort and repeated blows, in order to hasten the fall of the capitalist.

3. Class Struggle. The social tragedy is played by the proletariat, whose liberation is incompatible with the principles of capitalism, of ownership and of the state. The present crisis can be terminated only through merciless struggle, prolonged until the political, economic, judicial, and moral ideals of the proletariat prevail. The "C. G. T." is essentially an organization for class struggle, but instead of advocating progressive penetration into political power, it arrays the working people against all our social institutions. The weapons used by the syndicalists against employers are strike, boycott, label and sabotage. Against the state, they contemplate the general strike.

Syndicalism does not pretend to transform society in one day by a masterful stroke. On the contrary, it is going to conquer capitalism and the state by a slow, progressive method, prudently mixing revolutionary action with daily labor. Its blows are the more effective because they are incessantly repeated.

What will come of this radical conception no one knows. The point is that the syndicalist movement had its origin in successive deceptions by an ostensibly democratic régime. When laborers were convinced of the deceptive nature of political power, they associated in order to oppose to the force of capitalism another greater force and subdue it victoriously. As one syndicalist said:

The abuses of the capitalists have done more for the advancement of the syndicalist movement than all the combined efforts of its leaders; capitalism has prepared its own burial.⁴

⁴Garriguet, *L'Evolution Actuelle du Syndicalisme Français*.

Under the momentous circumstances of the war, the French soul reawakened at the vision of the catastrophe to which the nation was tending. A unity was reformed for the pursuit of a common purpose—liberation from Prussianism. It is hoped that the errors of the past will serve as a lesson for the future.

*III. American Syndicalism.*⁵—Out of the disillusion caused by the failure of the unions and the socialistic party to bring about a true democracy, syndicalism has developed in America too. Its organization, known as "The Industrial Workers of the World" ("I. W. W."), has been initiated by Americans, quite independent from French syndicalists. Nevertheless, they hold the same program—unwillingness to compromise with employers and to participate in government, direct action through sabotage, local and general strikes and spontaneous organization of an industrial democracy in which labor will dictate to the rest of society.

During the war, laborers were courted as never before. Day after day they were told that this war was fought for democracy and that when it was over everything would be better. The War Labor Board established the most advanced rights of labor. President Wilson said: "There must be a genuine democratization of industry." And thus we gained the coöperation of labor in war. When these simple men felt that they were working for a great common cause, they believed that coöperation was established forever. But when the war stopped, virtually nothing was changed and their illusion vanished. Since syndicalism recruits its members among those who had believed that a better order was at hand and have experienced the vanity of compromise and coöperation,

⁵J. G. Brooks, *American Syndicalism*.

these men, disillusioned in their hope for industrial democracy, naturally increased our present syndicalist activity.

IV. Bolshevism.—Bolshevism is Russian communism. Contrary to syndicalists, bolsheviki have a definite program of government. Trade unions elect "soviets" or vocational councils which are local administrative bodies. These in turn elect their representatives to district councils and these send delegates to a national council. Since union men alone are voters, the system is, in fact, a laboring-class dictatorship. In Russia, the unions have disfranchised the owners of factories and operate both industry and government. They have confiscated capital and aim at the suppression of exploiters and parasites by forcing everybody to earn his own living in taking active part in production or distribution. Bolsheviki are recruited chiefly among city factory workers; and although this group includes only one-sixth of the population of Russia, they hold up almost the whole country. They show how an organized, energetic minority can subjugate an unorganized majority. They show also that the reaction against despotism is another despotism, at least as intolerant and oppressive as Czarism was. They merely invert the order of oppression.

All radical movements are based on naïve conceptions of human nature, such as equality of men in needs and ability, willingness to work without incentive, spontaneous respect for law and order which makes government coercion unnecessary, self-government of the masses without leadership, and so on. Moreover, they are stimulated by two misleading ideas: first, that labor is the sole producer of wealth; and, second, that the real function of government is to protect capitalism alone. But

the fundamental cause of radicalism is not the fancy of a dreamer, it is personal abuses and social injustice. Suffering and resentment for actual wrong are the primary stimuli of change in social order.

Present antiradical propaganda, by emphasizing the importance of the radical movements and bringing them constantly to the attention of the people, really stimulates curiosity and propagates radicalism. The less workpeople hear about radicalism the better. Hon. William B. Wilson, Secretary of the United States Department of Labor, summed up the cause of radicalism and the remedy in these few words:⁶ "Uncorrected evils are the greatest provocative to extremist propaganda and their correction would in itself be the most effective counter propaganda."

⁶ *Industrial Management* for April, 1918.

CHAPTER VIII

STATE SOCIALISM

26. Origin of State Socialism.—Professor E. S. Meade in discussing the function of the government has the following to say:¹

The functions of the government are twofold: first, to secure to each individual the enjoyment of all the privileges consistent with the enjoyment of similar privileges by others; and, second, to further the welfare of its citizens.

The first heading includes the negative functions of the government; protection of the citizens against injury and injustice from their fellow citizens; the second includes the positive or economic functions of the government. By government we mean any municipal, state, or central government. These industrial functions of the government, which have developed during this half century, have been termed state socialism, though they have no connection with the socialistic movement. Government enterprises have been conducted on the same general principles as private business.

Before railroads came, the industrial functions of government were restricted. During the Nineteenth Century, the number and importance of public services or utilities grew constantly. However, governments were unable to undertake at once such new functions, because

¹ E. S. Meade, *Economics*.

these public utilities were experimental, involved great risk and demanded a great deal of initiative. Consequently, the early development of modern public utilities was generally conceded to individuals or corporations. Because of the franchises granted, some limitations were generally imposed upon the rights of these enterprises. It was long before they paid; yet after a certain period of trials and errors, their success, as a rule, surpassed expectation. Then the public felt exploited and demanded government regulation, which has since constantly increased. As business developed, the evils of monopoly appeared and it became more and more difficult to reconcile private and public interests. Meanwhile, the prosperity of nations enabled their governments to borrow great sums of capital. Therefore, the government was able to assume control of public utilities. As business grew steadier and safer, the services, methods, and equipments became standardized and the original risk of operation became almost eliminated. Then the view spread that public utilities should be publicly owned and operated.

27. Development of State Socialism.—Abroad, state socialism has been developed on a very large scale. Walling and Laidler declared:²

The collectivist tendency has been notable not only in Germany but in every country of the world for fully half a century. The careful study of the probable development of collectivism in Great Britain and other countries made by the Fabian Research Bureau, leads to the conclusion that, even without the stimulus of the war, collectivism may be expected within a generation to absorb the majority of the populations of the world.

² W. E. Walling and H. W. Laidler, *State Socialism*.

Though this seems exaggerated, they maintained further:

"The bulk of reasonable men in the empire," says the *Times* expert whom Lord Milner blesses, "have come over to the primary socialist assertion that food production, transport, all the big industrialism are matters not for the profit-seeking of private ownership but for public administration."

The results of these public industrial enterprises have differed according to the manner in which the people exercised their control over administration. From this point of view two classes of state socialism may be considered: first, the German system which was thoroughly successful under the most autocratic control, for the profits of its various activities covered nearly half the government expenditures; second, the systems, which were installed in democratic countries, frequently left much to be desired, both in service and profits.

The success of the German government in state socialism and the relative failure of the democratic countries show how closely collectivism is allied with autocracy. When long established traditions and political influences work against efficiency in public service, a master's hand is needed. When the German government reorganized its railroads, it discharged and pensioned a great part of its officials, raised considerably the salaries of those remaining and defined their responsibilities. Efficiency, improvement and economy resulted. But how can a democracy do these things?

28. Deficiency of State Socialism.—Inefficiency in government management is well known; volumes have been written from experience to demonstrate it.⁸ The

⁸ Yves Guyot, *Where and Why Public Ownership Has Failed*.

main causes may be summed up as follows. The high executives are tied up to the unbusinesslike procedure of legislature. Officials have no discretionary power whatever; they have only to carry out the letter of their instructions. By so doing, they avoid responsibility and dodging responsibility becomes their chief care. Divested of power and free from responsibility, they have no interest in the work, no ideals, and no motive to work. Moreover, they often feel that the state exists to support the administration and they become unaware of duty to be performed. Moreover, their authority over subordinates is often a mere illusion. The working men, on the other hand, are very inefficient, because they lack leadership, ideals, stimulus, and loyalty. In France, before the war, discipline had almost disappeared. Workmen felt that the state existed to be milked and had no motive to work.

Unfortunately, it cannot be otherwise when control of enterprises is in the hands of politicians who live on the votes of the very people whom they have to direct and govern. Favoritism, nepotism, distribution of sinecures, slack discipline, and corruption prevail, because the object of these politicians is at any cost to get and retain the votes of the largest possible number of employees and of their friends and relatives. Thus, as Yves Guyot declared, "governments themselves persist in destroying all spirit of discipline among their own employees."

In order to correct inefficiency in government management, caused by its dependence upon legislatures, a series of reforms has been proposed, the essence of which is the constitution of an administrative body accountable to the legislature and to the personnel, but effectively protected against unreasonable demands from any group of

employees, politicians, or consumers. Such emancipation should be supplemented by an autonomous financial system and industrial accountancy.

As to employees, English authorities cited by Yves Guyot, who supports their opinion, think that "the suppression of the political and electoral rights of all employees of state and municipalities is an indispensable consequence of the development of public operation." But will they surrender their right to elect their superiors who are now obliged to keep them in easy berths? It is expected that the discretion and responsibility given the executive head will build up his authority and enable him to animate the soulless body of his personnel with the right spirit of service. Primarily, the attitude of the personnel toward the state must be radically changed from top to bottom; and, particularly in the old countries, this is probably the biggest task, for as Yves Guyot says:

The Government ought to prove itself a model for all the employers, they say. But, as a matter of fact, this conception of the model state is one of robbery of the whole body of taxpayers for the sake of the minority which will profit by it.

Under government operation, conditions of work have been improved, wages in many instances have been slightly increased and standardized, and pensions have been provided. Still oftener, hours of work have been shortened and tenure of employ made more secure, although production has been heavily reduced.

29. Conclusion.—In spite of its inherent faults, government operation of public utilities was everywhere considerably extended during the war and in many cases

will remain after it, though, to take care of its encroachments, readjustment is certain.

Whether state socialism is desirable or not, as regards at least the great public utilities, it is bound to spread, because in the face of many authorities, it is generally supported by public opinion. Therefore, the actual problem is not so much how to oppose it, but how to improve the system and define its limitations.

Experience with state socialism, repeated in different countries and in different industries, shows that good pay, security of employment, good conditions, humane treatment, short hours, light tasks, etc., are powerless to motivate a human organization which lacks leadership and ideals and which is deadened by conflicting interests and bad traditions. This is to be contrasted with the extreme efficiency of the coöperative societies, as we shall see in the following chapter.

CHAPTER IX

THE COÖPERATIVE MOVEMENT

30. Origin of the Cooperative Movement.—The early industrial era was characterized by helpless poverty. Out of this misery, out of the abuses by middlemen and speculators, and out of the lack of correlation between supply and demand arose the modern problem of how to promote efficiency in distribution in order to increase the purchasing power of money. The inevitable law of action and reaction engendered and then developed the co-operative movement as a corrective of these evils. It is now working silently, but surely, a veritable revolution in methods of distribution.

In 1844, at Rochdale, England, twenty-eight weavers formed the first coöperative society upon principles which have been followed since and have brought success. Moved by the intense misery which accompanied at that time the industrial evolution, they proposed buying in common the necessities of life, and, by so doing, saving the profit of the retailer.

Coöperative societies, or coöperatives, aim at the immediate amelioration of the lives of working people and peasants through associations whose purpose is efficiency in distribution and elimination of wasteful competition, by suppression of middleman, wholesaler, retailer, banker, employer, and proprietor. Their objects have been the following:

1. Buying, selling or working in common for mutual advantage.

2. Acquiring a collective control over the necessities of life.

3. Improving the conditions of laborers as producers.

31. Characteristics of the Coöperative Movement.

—A coöperative is a corporation whose membership and contributions are variable and whose shares are untransferable. Its essential characteristic is that there is no dividend, but only a moderate, fixed interest attached to these shares. From these two facts, unlimited number of shares and limited return, it follows that whatever may be the profit, the price of shares never rises. In contrast with corporate usage, profit is not proportionate to shareholding but to purchase. Since the coöperator is at the same time a shareholder in his society and a customer of it, he shares in the profit in proportion to his purchases and has with other purchasers equal rights of control. Coöperatives, from top to bottom, are controlled by the whole body of purchasing members. The shares of coöperatives are generally set at about \$5.00 each. It is sufficient to pay one-tenth down in order to become a member.

32. Classes of Coöperatives.—There are four classes of coöperatives:

1. Retail stores, or coöperatives of consumers;
2. Wholesale stores, or coöperatives of retailers;
3. Federation, or coöperative of wholesalers;
4. Coöperatives of producers.

The first class, coöperatives of consumers, has developed two types of societies distinguished as to their purposes:

1. Coöperatives of consumption are local societies of

consumers which operate retail stores. They are the more numerous and admit everybody as a member.

2. Financial coöperatives, such as: (a) rural credit associations; (b) popular banks; (c) mutual insurance associations (fire, hail, cattle, etc.). There are also local societies whose purpose is financial help to their members who are small farmers, mechanics or traders.

The second class, coöperatives of retailers, which operate wholesale stores, are formed like retail societies, which are their members. They are coöperatives of co-operatives. Their purpose is the distribution of goods among their members, the retailers.

The third class, the federation or coöperative of wholesalers, is a coöperative of the third degree, since its members are wholesale societies. It secures to the wholesale stores the advantages of centralization of buying on a large scale while it retains for each of these stores its independence. These federated coöperatives are now engaged in all sorts of commercial, financial, and industrial activities, not only in buying and selling, but also in banking, insurance, steamship lines, and manufacturing. Many of them conduct every operation between the importation of raw material from overseas to the finished product for the ultimate consumer; in short, they conduct all the activities which can make or save money for their associates. In Europe, in 1912, the number of co-operatives of all classes amounted to 12,000, associating about seven million members. Their invested capital amounted to about \$200,000,000 and their volume of business reached annually \$700,000,000, about half of which consisted of transactions with the wholesale co-operative stores.¹

¹ P. Brizon et E. Poisson, *La Coopération*.

The fourth class, coöperatives of producers, groups producers as in: (a) rural buying syndicates; (b) rural selling syndicates; (c) manufacturing coöperatives of workers.

The manufacturing coöperatives, conducted independently from those of distribution, have failed because they are often founded with insufficient capital. They cannot develop their market and are managed either by men who are incapable or who have their authority constantly questioned by their associates. Few working men possess sufficient coöperative sense and knowledge of economics to control even indirectly such a complicated organization. They lack foresight, calculation, and patience. Such coöperative societies have to face the hostility of the bourgeoisie as well as that of the capitalist manufacturers and middlemen. Moreover, these societies have to reckon with the constant trend toward improvement in the equipment of capitalistic competitors, which their limited means cannot afford to install. For these reasons, no one wants to risk much capital in coöperatives of production.

The conditions are more favorable, however, when manufacturing is carried on by a coöperative of wholesalers; that is, by a coöperative of the third class. Then output and prices are determined by contract, and the risk is at a minimum. Friction between manager and personnel is also reduced through centralization of control. Nevertheless, even under the most favorable circumstances, production by coöperatives is restricted to certain staples, because industrial risks, which may spell ruin, are too severe for poor people.

33. Influence of Coöperatives.—Production fluctuates when there is no system to ascertain demand. Spec-

ulation ensues, supply and prices are disturbed and then labor becomes demoralized.

The object of the federation of coöperatives is the steadying of industry by producing only to an ascertained demand in kind, quality, and quantity. Distributive and productive agents keep in contact through regular meetings of managers of retail and wholesale societies, so that coöperation is characterized by a proper balance of supply and demand. Such central control of supply, springing from the ultimate consumers, is the most perfect regulator of prices, because it is not arbitrary; it is the free, natural play of the economic forces which control prices and wages. There are neither artificial booms nor famine wages in producing coöperatives; consequently there is more justice and less disorder.

The weakness of the old competition is secrecy among producers, because it aims to gain by speculation. The strength of the new form of distribution is knowledge gained through coöperation. The certainty of success in transactions results in safer merchandising methods, which replace by a moderate but regular profit the possibility of exceptionally large gain or loss.

It is claimed that labor conditions in the coöperative shop are greatly superior to those in the private shop. As a rule, the eight-hour day is observed in the factories, trade-union conditions are also invariably observed; and, in many shops, trade unionists only are employed. The two movements, coöperatives and unions, are generally run by the same people. There is, moreover, a tendency to fix wages according to an ascertainment of standard needs.²

² See G. N. Barnes, "Coöperation in Relation to the Industrial System," *Proceedings of the Royal Philosophic Society of Glasgow*, 1913.

Let us note, in passing, that the coöperative movement has worked wonders in educating union men and socialists in the science of economics and management and in showing them by object lessons that most evils, which they attribute to the ill will of the individual employer, are, in fact, inherent in business.

34. Causes of Success.—The success of the coöperative movement is due primarily to the altruistic spirit of coöperation which permeates it and to the enthusiastic interest and devotion which its leaders have shown in the development of "their shops"; for these shops represent to them not merely business, but the great cause of the laboring class itself. No effort or sacrifice looks too great for the attainment of their ideal, because they identify themselves with it. The loyalty of the consumers has been cultivated chiefly by self-interest. The extension of the coöperative movement was inevitable because it was motivated by an apostolic love for the working class and by an altruism which springs from the cosmic soul of organized collectivities when they feel free from exploitation.

The source of profit of the coöperatives is in three factors of prices: costs, general expenses, and middleman's profit. Costs are lowered to the extreme minimum through centralization for buying on a world-wide scale; general expenses are reduced through the efficient coöperation and loyalty of all, which permits the reduction of expense of merchandising; and the profits of middlemen and some other intermediaries are eliminated.

In America, the coöperative movement has scarcely started; according to Professor R. L. Butler,⁸ the reasons are that in this country wages were never so low as in

⁸ R. L. Butler, *Marketing Methods*.

Europe. Then, the American people have not yet developed class consciousness; individualism prevails and, therefore, the would-be leaders in coöperation lack the indispensable loyalty. The American working people are heterogeneous in race and constantly shifting from place to place.

The object of this chapter has been not merely to show one of the directions of industrial evolution, but to set forth the intelligence, elevation of ideals, industry, self-denial, and patience of which workingmen are capable when their good will is properly stimulated.



PART II

THE OUTLOOK

CHAPTER X

THE INDUSTRIAL PROBLEM

35. Claims of Labor.—We have seen how disagreement among different groups brought about the present issues in industry. A restatement of the essentials of this situation will sum up the problem as it stands now.

The fundamental fact is that, notwithstanding the private interests still involved, industry has been changed from a private means for private interests into a social means for social ends. Our system of production and distribution has become a world-wide coöperation for exchange of services. Much of the present unrest is due to the fact that we have not fully grasped this principle and have not adapted our institutions to it.

I. Responsibility of Capital.—Before the capitalistic system, labor was independent and, therefore, responsible. But since capital has made labor completely dependent, labor places upon the industrial system responsibility for its well-being. That is, it demands opportunity for apprenticeship, permanency of employment, standard working and living conditions, regulation of the cost of living, insurance against sickness, accidents, and invalidism, pension for old age, and various welfare works such as recreational, educational, and health services. In short, since capital has monopolized all means of production, it has made itself responsible for the present needs as well as for the progress of labor.

II. Economic Partnership.—Moreover, labor feels that it has some claim upon the surplus it helps to create and demands the recognition of its partnership, that is, of its title to share in the proceeds of industry.

The early employer, assuming the ancient master's right to unlimited loyalty from his servant, treated labor as a mere commodity. As industry grew, the prosperity of employer and middle classes, compared with that of labor, suggested that unjust profiteering existed in the distribution of wealth. Then the proletariat, awakening to class consciousness, realized it was being exploited; and as money was the symbol of wealth, it seemed logical to start a movement to increase wages at the expense of profits. At present, labor sees in production, distribution, and consumption a supreme human interest overshadowing the personal interests of capitalists.

III. Partnership in Management.—The feudal idea which governed the early establishment of industry ignored altogether the human element in labor. Autocratic organization was introduced into industry in imitation of the feudal, militaristic type of management which was the only suitable precedent. The employer assumed, as a matter of course, the right to exercise unrestricted compulsion upon labor. Although the forms of compulsion have been considerably softened, the principle, though bitterly opposed, still persists.

To-day, the starving worker of old, who looked upon his master as a protector, has disappeared. Isolated laborers have been united into organized social groups, hereafter called collectivities, conscious of their social power. Whether such a union is formal or tacit, consciously or unconsciously a collective spirit is being created and organized, which embodies the collective

aspirations of the group of labor. This collective spirit is a new force whose management demands special treatment. The collectivity does not replace the individual, it supplements him. It represents labor as a partner to industry and, in such a capacity, it affirms its will to be heard on the question of how industry shall be conducted.

To sum up the essential claims of labor:

1. The whole responsibility for the welfare of labor rests on capital.

2. The partner relationship of labor shall be recognized as to: (a) its share in the proceeds of industry; and (b) its participation in the conduct of industry.

36. Claimants to the Proceeds of Industry:

I. Capital.—The functions of the old time boss-capitalist have been separated as follows:

1. The capitalist bondholder stands in the background; his interest, like wages, is an element of cost. The rate of interest is not in the power of the employer or of labor to determine.

2. The stockholder is a capitalist who is entitled to a contingent profit in consideration for his risk.

3. The management, which represents the entrepreneur, is the responsible party. But the management of individual concerns cannot assume the responsibility for the general interests of labor beyond actual production because it does not represent industry as a social organism nor capital as a class and because it has to face competition.

4. In our system of social coöperation, industry can no longer be considered as a segregation of economic units. An aggregation of individual concerns into a national organism is necessary to represent American in-

dustry and deal with the general questions of labor. Hence the organization of the National Industrial Conference Board, in whose booklet we read:¹

The National Industrial Conference Board is the response to the demand for coöperation among manufacturers. It was organized to unify and centralize the efforts of industrial associations in studying and solving the economic problems of industry and to take constructive action in respect to issues vital to the welfare of all.

Founded in May, 1916, the National Industrial Conference Board is a federation of national associations of manufacturers in the principal branches of American industry. . . . As now constituted the Conference Board comprises twenty-three of these organizations, through which it may speak and act for many thousands of representative manufacturers employing over seven million workers. The delegates appointed by the member associations constitute the governing body for deliberation and executive action; in addition, the Conference Board avails itself of the knowledge, experience, and judgment of many other industrial leaders as counselors and committee members. . . .

The membership of the Board is steadily being extended to other national and state associations of like character. It is expected that in due time all important associations of this kind will be included, thus making the Board still more the spokesman of American Industry.

PURPOSES OF THE CONFERENCE BOARD

The National Industrial Conference Board is an organization in which American industries are associated for the common purpose of promoting the stability and prosperity of Industrial America. The objects of the Board are:

First: To ascertain pertinent economic facts underlying and affecting industrial conditions, and to draw from them justified conclusions;

Second: To secure on this basis joint deliberation and

¹ National Industrial Conference Board, New York City.

joint action for the manufacturers of the country through their chosen delegates, for the sound development of American industry;

Third: To promote understanding and satisfactory relations between employers and employees as an essential basis for the conduct of industry and the welfare of the nation;

Fourth: To give the public an accurate conception of the character, scope, and importance of industry, its needs and its intimate relation to individual and national well-being, to the end that this knowledge may be reflected in an intelligent public opinion and in wise legislation;

Fifth: To command, by the justice of its contentions, the force of its collective experience, and the strength of its representative character, the attention of the Government when formulating industrial legislation and policies.

In pursuance of this program the National Industrial Conference Board has so organized its activities that it is virtually an agency for the collection and dissemination of pertinent facts and opinions, a forum for constructive discussion, and an instrument for coöperative action on matters vitally affecting the industrial development of the nation.

5. The individual capitalist claims the free disposal of his property, whereas national wealth has become more and more a means for promoting social welfare. In the war, the national wealth of nations was pledged for national purposes. Property of alien enemies was confiscated without regard to their personal rights. These facts present a new limitation upon the right of proprietorship of the individual, and attest the solidarity of the individual with his nation. As a consequence, the class of capitalists, although as yet lacking cohesion, has become partner in the industrial conflict and has assumed new obligations.

II. Labor.—Nor, in spite of his particular interests, does the individual worker represent labor. Unions and

the Federation of Labor are supposed to represent labor as a class. Though they defend its cause and are the only organizations to deal with, they represent but a part of the laboring class. Labor is really a greater entity which should be entirely organized to sustain, in a constructive way, its claims against industry as a unit.

III. Society.—Further, we see that labor is not alone in creating utilities. Those who develop the community and the country and professional men and artisans whose efficiency enhances the buying power of the dollar are no less contributors to the social surplus. Moreover, the distributors and the bankers create other kinds of utilities. Besides, every other class, such as the military, scientific, judicial, clerical, artistic, administrative, and political, are no less indispensable. They see their interests linked with those of production. Consequently, labor does not constitute by any means the whole of society and, in a real democracy, cannot dictate to society. Finally, the interests of the consumer, who is becoming an aggressive partner, may be at divergence with those of society, particularly in government operation of public utilities and in protective tariffs.

IV. The Eight Parties.—Hence the industrial contest is much more complex than a mere dispute between two single parties, loosely called labor and capital. In fact, the disputants are eight. They classify in the following categories:

*Specific or Personal
Parties*

Individual worker,
Individual concern,
Individual capitalist,
Consumer.

*Groups or Impersonal
Parties*

Labor as a class,
Industry as a social unit,
Capitalistic class,
Society.

37. Object of Claim.—What are the proceeds of industry in which labor claims a share? These proceeds may be either the actual profits of individual concerns, or wealth, that is, social surplus, accumulated from the past. The first claim means sharing cash in distribution of profits. The second, the claim against social surplus, evidently cannot be one of division of wealth; consequently, the mode of sharing this social surplus must be conceived of in some other way.

Profiteering, that is making money without creating corresponding utility, is an abnormal destructive practice which should not be confused with straight profits.

38. The Title of the Entrepreneur to Profits.—A new social order, created by the establishment of a new business, constitutes an industrial estate, whose value is quite apart from its physical cost or actual yield. Its value is determined by its social service. For example, an entrepreneur, who establishes in the United States at his own expense and risk a dye-manufacturing plant, creates an industrial estate whose value is proportionate to the service rendered. This service consists in utilizing the by-products of coal, which were formerly wasted, in offering opportunity to labor, in making the supply of dye-stuff independent of foreign countries and in increasing national wealth. Such service, however, is not evaluated. It is rewarded only by the difference between the market price of imported dye-stuff and the cost of producing the same goods, if the manufacturer can realize a profitable difference. This is the incentive of industry.

Such an industrial estate is an intangible value attached to the physical property; it is the work of the entrepreneur and belongs unquestionably to him, just as the

good will of the customers belongs to the merchant. It is like inventions and the discovery of mines, the titles to which and benefits of which are generally protected as an inducement to initiative. In the same way, to develop the resources of new countries, exclusive manufacturing privileges are sometimes granted for a number of years to the first concern which establishes a new industry. Consequently, as the founder of the new order of things, the entrepreneur has a fundamental title to profit. And his title is independent of and precedent to actual transactions, just as the title to the rent of a house is with the owner, whether the house is rented or not.

All our civilization is based on the principle that "the prosperity of a people increases in proportion as individuals are secured in the possession and enjoyment of what they produce or acquire."² The continuance of our prosperity requires that this principle be maintained. Furthermore, the contributions of the entrepreneur and labor to profits are far from being equal. Profits are, indeed, the product of a successful combination of skillful promotion, foresighted financial policy, judicious buying, stocking, and selling, adequate business organization, capable management, and superiority in service. Each of these elements has as much bearing upon the final result as labor has. The contribution of the entrepreneur, therefore, is not a fiction; it is a reality which warrants fully his title to the ownership of what it produces, that is, to profit.

The title of capital to profits is its financial responsibility for the successful carrying out of the plan laid by the entrepreneur. The number of failures constantly occurring shows the reality of the industrial risk.

² E. S. Meade, *Economics*.

39. The Title of Laborer to Profits.—May the situation of laborer be considered as a partnership, even in the broadest sense which this term carries in business? Partnership is a legal relation existing between parties who, as principals, have an expressed or implied agreement to combine their property, labor, and skill in carrying on lawful business for their joint profit and to share their joint liability for loss.

The would-be partnership of labor is necessarily a personal matter between each employer and his individual employees. But such association does not obtain since the laborer cannot meet the first requisite of partnership, namely, responsibility for loss. He cannot be made liable, not only because he is insolvent but because of the many activities that make for profit or loss, such as promoting, financing, accounting, managing, buying, selling, and producing; his contribution is restricted to producing only. Moreover, why should those employed in unsuccessful concerns be less fortunate than those who chance to enter into the service of the prosperous ones? A partnership also implies a stability of association which is incompatible with the right and habit of the laborer to leave at any time. Consequently, his situation is not a partnership and cannot warrant a claim to cash and share profits.

But, contrary to the temporary association of the individual worker with his employer, labor as a class is a permanent associate of industry as a social unit. The reciprocal relationship between the group of labor and industry, represented by the group of employers, is a new reality which needs to be defined and understood. These groups are not business partners and have nothing to divide. But, according to modern conception, indus-

try is primarily a means of supporting human existence. Consequently, the partnership of labor and industry is a social partnership whose object is social progress.

The social purpose of industry does not prevent individual concerns from making profits. It is concerned with the investment of social surplus in social developments, for which capital, or accumulated profits, is a prime requisite. The legitimacy of profits is now debated because of confusion between two different parties—individual concerns and industry as a social unit.

40. Profit Sharing.—Many schemes of profit sharing have been proposed but have generally failed in practice. As a means of reward for coöperation, profit sharing is essentially defective because it is impossible to determine what has been the contribution of labor in making profit. It may happen that a company shows a profit in spite of labor inefficiency. In this case, sharing would be a premium for laziness. On the other hand, in spite of all the efforts of labor, the company may show no profit or may even show loss. Profit sharing is an arbitrary, paternalistic proposition, rationally indefensible. It is based on a desire to do something for labor and on a sentiment of "reasonableness." Let us remember that, according to time and people, a "reasonable" share may vary from naught to the whole profit. Nothing is more inconsistent and dangerous than "reasonableness." Every compensation must be based upon an invariable principle and standard of measurement of efficiency.

Employees can share in profits only by becoming capitalists; that is, by buying stock. Many corporations have already favored this practice, and, as a means of creating loyalty and stability and of diffusing capital,

experience has proved its soundness. No gratis distribution of stock could ever have this effect or even arouse appreciation. In principle, every such concession is demoralizing.

41. Sharing in Efficiency.—Generally it is more desirable to pay the individual worker a premium for his efficiency, but sometimes it is better to build a community of interests. In the latter case, a plan for sharing in the savings is often devised which provides that, after a short period, one-half of the savings be added to wages. This does not apply to new equipment for the initial efficiency of a new equipment, ascertained by tests, is often higher than the best performance of current practice. Since all plants change, a minimum standard of efficiency may be agreed upon and arranged so high that the whole savings of wages above that minimum can be turned over to labor. The benefit the employer gets is from the savings in general expense. Furthermore, a plan for sharing in the savings of any waste may be devised. Whatever may be the plan, it should provide a means for determining the share of labor after a change of equipment, process, or conditions has taken place.

42. Functions of Profits.—All the wealth of the country, the larger part of which is invested in business and in social institutions, is an accumulation of surplus. Had profits been divided up for immediate consumption, no capital would ever have been available for industries; and no development would have ever taken place. Profits, therefore, are not only legitimate; they are necessary to create the social surplus the function of which is the maintenance of the invested capital that wears out in the processes of industry and the maintenance of social work.

Unless people enjoy social surplus in the form of new opportunities and institutions, such as railroads, public utilities, houses, schools, libraries, theaters, parks, hospitals, and every kind of welfare work, we miss the main purpose of social coöperation. The economic question of preventing a monopoly of wealth is beyond the scope of the present subject. Nevertheless it is safe to say that relations between capital and labor which will provide labor with better means for enjoying social surplus will do much to bring a happier order.

The sight of wealth is very alluring and apt to cause much envy; but, if we consider apparently big profits in the right perspective, we see that industrial profits are transitory. Competition soon reduces them. To the industrial system, we owe the development of the world and enjoyment of liberty. This is perhaps worth the price. Moreover, changes looking to more equitable distribution of wealth are continually going on through the action and reaction of economic forces.

To conclude, labor has no title to a cash share in the profits of industry. Consequently, we have to change our conception of sharing.

CHAPTER XI

THE NEW STATUS OF LABOR

43. Reconciliation of Conflicting Tendencies.—The claims of labor to partnership in industry cannot be reconciled with our individualistic, industrial system. That is why, in order to dispose of the proceeds of industry, it has been found easier to devise new systems of control of production than to attempt to correct the present system. Among these new systems, state socialism and coöperative societies continue to spread, but experience has shown their limitations. Socialism has not yet been tested, and its application cannot be contemplated in the near future.

The principle of private ownership is not essentially wrong, and it is being applied less individualistically. Therefore, it may be unnecessary to displace private ownership and create new evils. Harmonious readjustment, however, requires changes not only in industrial institutions but also in thought. The trouble is that neither our minds nor our industrial organizations have been adjusted to the new situation and ideas. Our conceptions of competition and monopoly must be suited to recent social changes; then the natural development of our institutions, according to these new conceptions, will eventually harmonize conflicting tendencies. But a new interpretation of the claims of labor is necessary to render them acceptable.

44. Collective Bargaining.—The old school of management gained profits by taking advantage of the inability of the worker to sell his service at its value. Disregarding labor as consumers, the employer sought low cost through low wages. But, since a similar course was imposed upon all manufacturing competitors, the employer did not get the benefit of low cost; and labor suffered loss. Scientific management recognizes the co-operation of the individual and proportions the reward to his service; thus, through increased production by means of coöperation, it realizes low cost though it increases earnings. Nevertheless the rating of wages is still arbitrary. In order to get the adherence of labor to scientific management, employers must deal with employees as equals, and make collective agreements with employees, particularly concerning basic rates of wages, piece rates, and bonuses.

E. F. Henry said in this connection: ¹

The distribution of wages is done by a sort of auction or bargaining that is a relic of the old days of cross-roads store methods. This has been driven out of almost every form of merchandising except the sale of services. For the sale and purchase of labor we should come out in the open and quote everybody the same price for the same goods.

The average man who applies for a job is pretty sure to weaken when the question of salary is broached. He is apt to wish to leave it to the employer, which puts a large temptation in the latter's way. He is visibly relieved when he finds a place where a standard starting wage is offered with advancement every so often. He hates to discuss the business of the question at all. Half of the applicants will accept a lower starting wage than they consider themselves worth. Men are not sure of their own qualifications. They

¹ *Industrial Management*, December, 1917.

are afraid that if they claim all that they should, the boss will bring out a job that they never saw before and show them up the first day. The few exceptions to this rule make so much stir about themselves that we are apt to overestimate their number. The average good mechanic or useful clerk needs a receiver from the time he goes to work until his will is read.

Since individual bargaining can afford an advantage for the stronger party, it arouses suspicion. That is why, whether exploitation is actually practiced or not, the worker imagines he is being exploited. The protection of profits, therefore, calls for the removal of every suspicion of unfairness and arbitrariness. Profits will no longer be regarded as a spoil to divide, if they are proved to be the fair reward for the work of the employer and the equivalent of utilities created. By collective bargaining, profits will be exonerated from any supposed or real taint of exploitation. Individual employers are not so much at fault, because few of them have any means of determining what they ought to pay; besides, they have no standards of the qualifications of workers.

Shop collective bargaining removes the inability of the worker to bargain individually, but this does not protect the employer against his competitors. Consequently, collective bargaining must extend beyond the shop in order to make collective agreements between the group of employers and the group of labor.

45. Fluctuation of Supply and Demand.—Collective bargaining and minimum wages can correct in part the hard consequences of the law of supply and demand, but labor at large cannot escape the effect of this law. A minimum earning during hard times may be secured for those who chance to remain employed, but

this is not all. The problem requires that the worker take advantage of good market conditions during times of prosperity. This real sharing in the proceeds of industry is not a participation in profits, to which the worker has no title, but in general prosperity. The problem, then, is to assure, during periods of depression, a minimum earning to the largest number of workers and, in times of prosperity, an increase in earnings in proportion to the demand for help. Since fluctuation of market conditions as yet is impossible to prevent, there will always be necessity for periodical readjustments.

Collective bargaining through adequate organization is a desirable way to readjust wages according to the supply and demand of labor; but, if the discussion in each case must depend upon actual sentiment and upon desires arbitrarily formed, there is a chance that frequently no peaceful settlement can be reached. Consequently, to avoid disputes, readjustment, as far as possible, should be made automatic.

46. Sharing Prosperity.—An automatic readjustment of earnings may be made by reducing the number of hours of the basic day paid at standard rates and by increasing the rates per hour for overtime. By this method, during periods of depression the whole working force is put on short time and the limited amount of work is equally distributed. In busy seasons and good times, the number of working hours increases according to the demand for goods and workers increase their earnings accordingly.

Professor J. R. Commons says:²

Almost every industry, including agriculture, might be put on the "basic eight-hour day" at once, requiring only a

² J. R. Commons, *Industrial Good-Will*.

little more care in time-keeping and supervision. During the first eight hours, regular time is paid and then time-and-a-half for overtime. This is almost the universal practice in trade-union agreements. It permits by prearrangement an increased output in the busy season, by adding more hours at higher rates of pay per hour, instead of more men at the same rates, and permits both a reduction in hours and a reduction in labor-cost when business falls off, but without laying off men. If labor turnover is expensive, then the basic eight-hour day is economical and profitable.

Such a simple agreement on a basic six-hour or eight-hour day, with time-and-a-half or double-time for overtime, provides an elastic and automatic means to move all wage-earners together in the ups and downs of business. Moreover, as Professor J. R. Commons states:⁸

It reduces both hours and labor-cost of the product in dull seasons and hard times. This reduction in cost, however, stops at the six-hour or eight-hour level. There is no sufficient reason, if the eight-hour level does not furnish enough elasticity, why the basic seven-hour day or basic six-hour day should not be adopted in those industries where experience shows that employment in off seasons or hard times gets down to thirty-five or forty hours a week.

Then, when the basic-hour day is adopted for day workers, it is but a matter of percentages or differentials added to the piece-rates for piece-workers, so that the piece-rates also shall, by prearrangement, advance when the hours increase and be reduced when hours are reduced. This basic-hour day for day-workers and its corresponding differential percentages for piece-workers is a modified form of profit sharing, since, in the busy season or prosperous times when there is more work for the employee and more profit for the employer, not only the hours are increased but also the rates of pay per hour and per piece are increased, and *vice versa*.

⁸ J. R. Commons, *Ibid*.

In continuous operation in which hours cannot vary, and even in the determination of the basic rates of wages for a given period, the variation of the rate should be proportionate to the cost of living as indicated by the index of commodity rates. A scale for such automatic, periodic readjustment has already been put into practice by certain concerns.⁴

Thus collective bargaining, together with a cost-of-living basic rate and reduced basic day, improves considerably the distribution of the proceeds of industry, without encroaching upon the interests of the entrepreneur. This is all right in so far as the immediate interests of the individual are concerned, but it still falls short of satisfying labor as a class. One class has the capital; the other must get in some form its equivalent.

47. Sharing in Social Surplus.—The old conception of ownership is being slightly reformed. At the beginning of our industrial era, capital had no moral and little social obligation; its right of ownership was nearly absolute and dominated the whole industrial system. But as the purpose of industry became more social, the limitations to this right have increased. Indeed, the war has shown that the right of private ownership varies according to social needs. To-day, a new limitation to capital's rights is seeking recognition, namely, the disposal of social surplus accumulating from profits. This is not to be confused with the problem of distribution of wealth in society.

The universal habit of thinking of money as an end in itself naturally suggests to labor the idea of sharing with capital or even of owning capital altogether. This is a

⁴ See H. Tipper, "Agreement vs. Bargaining," *Automotive Industry* for November 7, 1918.

mistaken view. Wages are not enjoyed as money. Likewise, social surplus or accumulated wealth is not enjoyed by possession. It must be invested for social enjoyment and social progress.

"Custom and a sense of propriety demand of the individual that he subordinate the exercise of the rights of private property to social interests and social requirements." ⁵ Therefore, the modern capitalist should recognize his new moral obligation to invest a part of his surplus for the enjoyment of those who have coöperated to create it. This question will be developed in Part IV.

48. Welfare Institutions as the Share of Labor:
I. Industrial Betterment.—The early factory workers burned their lives out by toiling under conditions absolutely unsuitable for human existence, until the exhaustion of entire populations demanded that attention be paid to the physiological needs of workers. Regulations, restricting employment of children and women, were made; improvements in methods of lighting, heating, sanitation, and safety were introduced; and, in addition, rest and lunch-rooms, recreation centers, emergency hospitals, etc., were provided. Some employers even gave their employees an opportunity to live in model houses in ideally pleasant surroundings. In some instances, schools and insurance and pension systems have been supplied. Better working conditions and welfare work are now looked upon as a matter of course. For the sake of their prompt introduction, it is gratifying to see that good economic results follow attention to the well-being of workers. This proves the correlation of ethics and economics, as Professor Lee Galloway pointed out: ⁶

⁵ E. S. Meade, *Economics*.

⁶ Lee Galloway, *Organization and Management*.

By experience it has been found in America as well as in Europe, that the promotion of the physical, mental, and moral welfare of the employees is actually a matter of profit to the employer. If healthy, intelligent, comfortable and happy workers do better and more work than those who are ill-nourished, unintelligent, miserable and ill at ease, there is no question but that it pays to have the former. If the workman is regarded and treated as an automaton, bad work, ill-will, disagreements, strikes, and labor troubles result.

By means of welfare work, labor, as a social group, shares in the proceeds of industry.

II. Social Betterment.—The fact that industry now has a social purpose and that life has become more social, has given the laborer a vision of broader citizenship and set his will upon self-realization in social life.

Social welfare of working populations, although closely related to development of industry, presupposes administrative activities and financial operations beyond the object of industrial concerns and beyond the responsibility and competence of their management. Social betterment, which necessity has forced upon isolated private concerns, cannot be interpreted as an acknowledgment of the social responsibility of industrial firms. Nevertheless, the capitalist class, by holding itself as a provider of the means of the well-being of the working class, has thus accepted responsibility with regard to satisfying the social aspirations of labor. Philanthropy and charity have become inadequate. The time has come when guesswork must give way to social engineering; that is, to scientific development of social institutions, the enjoyment of which is the main share of labor in social surplus.

CHAPTER XII

MEANING OF DEMOCRATIC MANAGEMENT

49. Principles of Autocracy.—The industrial evolution is characterized by a radical transformation in the attitude of management toward labor; for the worker, first regarded merely as an economic factor, came to be regarded as an individual, and, more recently, as a coöperator.

Paternalistic management had become sometimes so sympathetic that those who were unconsciously autocrats had reason to believe that industry would be better off if they were left in undisturbed control of production. Labor, however, when not hostile to paternalistic policies, was left indifferent.

Since the latest stage of evolution of industry consists in passing from the autocratic to democratic methods of management, we shall contrast the principles of these two methods. Autocratic management is more than an opinion; it is a system and has principles. We shall see how it derives from autocratic government. The early form of government was founded upon these three principles:

1. The people existed for the sake of the state and military class.
2. Military excellence conferred such superiority that the ruling class considered the plain people as essentially and hopelessly inferior.

3. The ruling class made the law and enforced it upon the common people. So the autocratic government became a hierarchy in which every grade manifested servility toward its superiors and coercion toward its inferiors.

These principles, almost unquestioned in the beginning of industry, have been applied as a matter of course to its management. Therefore, the autocratic manager believed: (1) that the worker exists for the sake of industry; (2) that his lack of culture makes the worker hopelessly inferior relatively to excellence of knowledge; and consequently, (3) that, for his own good, the worker must be governed by authority.

The aim of all revolutions has been to overthrow class dependency. Peoples have succeeded in part in getting rid of coercion. But this constitutes only negative liberty, since it is mere liberation from restrictive, alien power. Positive liberty, the object of present aspiration, consists in the attainment of a constructive system for the self-determination of individuals, of groups, and of nations. This cannot be gained by revolution, but only by organizing human forces for ultimately attaining greater union. This is the task of democracy.

50. Principles of Democracy.—The principles of democracy are obverse to those of autocracy; instead of benefiting a ruling class, democracy benefits all people. These principles may be summed up as follows:

1. The state exists for the people; likewise, industry also ought to have a social purpose.
2. Every man may possess some peculiar excellence, which ought to get opportunity to manifest itself.
3. Democracy says that government derives its just powers from the consent of the governed.

We shall see how these principles are being introduced in industry.

I. The New Meaning of Industry.—The new meaning of industry is primarily the support of human life; consequently, the common social interest of employers and employed has become more important than the private interests of capitalists. In actions of public-service corporations, the courts have held the duties of the corporations to the public to be superior to those of the corporations to their stockholders. As to the new attitude of capital, I cannot do better than quote the following from the address of John D. Rockefeller, Jr., before the War Emergency Congress of the United States Chamber of Commerce, Atlantic City, December, 1918:¹

What is the purpose of industry? Shall we cling to the conception of industry as an institution primarily of private interest, which enables certain individuals to accumulate wealth, too often irrespective of the well-being, the health, and the happiness of those engaged in its production? Or shall we adopt the modern viewpoint and regard industry as being a form of social service, quite as much as a revenue-producing process?

Is it not true that any industry, to be permanently successful, must insure to labor adequately remunerative employment under proper working and living conditions, to capital a fair return upon the money invested, and to the community a useful service. The soundest industrial policy is that which has constantly in mind the welfare of employees as well as the making of profits, and which, when human consideration demands it, subordinates profits to welfare. Industrial relations are essentially human relations. It is therefore the duty of every one entrusted with industrial leadership to do all in his power to improve the conditions under which men work and live.

¹ J. D. Rockefeller, Jr., *Representation in Industry*, *Annals of the American Academy of Political and Social Sciences*, January, 1919.

The day has passed when the conception of industry as chiefly a revenue-producing process can be maintained. To cling to such a conception is only to arouse antagonisms and to court trouble. In the light of the present, every thoughtful man must concede that the purpose of industry is quite as much the advancement of social well-being as the accumulation of wealth. It remains none the less true, however, that to be successful, industry must not only serve the community and the workers adequately, but must also realize a just return on capital invested.

Men are rapidly coming to see that human life is of infinitely greater value than material wealth; that the health, happiness, and well-being of the individual, however humble, is not to be sacrificed to the selfish aggrandizement of the more fortunate or more powerful. Modern thought is placing less emphasis on material considerations. It is recognizing that the basis of national progress, whether industrial or social, is the health, efficiency, and spiritual development of the people. Never was there a more profound belief in human life than to-day. Whether men work with brain or brawn, they are human beings, and are much alike in their cravings, their aspirations, their hatred, and their capacity for suffering and for enjoyment.

As the leaders of industry face this period of reconstruction, what will be their attitude? Will it be that of the stand-patters, who ignore the extraordinary changes which have come over the face of the civilized world and have taken place in the minds of men; who, arming themselves to the teeth, attempt stubbornly to resist the inevitable and invite open warfare with the other parties in industry . . . ? Those who take such an attitude are willfully heedless of the fact that its certain outcome will be financial loss, general inconvenience and suffering, the development of bitterness and hatred, and in the end submission to far more drastic and radical conditions imposed by legislation, if not by force, than could now be sociably arrived at through mutual concession in a friendly conference.

Or will their attitude be one in which I myself profoundly believe, which takes cognizance of the inherent

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right and justice of the principles underlying the new order; which recognizes that mighty changes are inevitable, many of them desirable; and which does not wait until forced to adopt new methods, but takes the lead in calling together the parties to industry for a round table conference to be held in a spirit of justice, fair play, and brotherhood, with a view to working out some plan of coöperation which will insure to all those concerned adequate representation, and afford to labor an opportunity to earn a fair wage under such conditions as shall leave time not alone for food and sleep, but also for recreation and the development of the higher things of life?

Never was there such an opportunity as exists to-day for the industrial leader with clear vision and broad sympathy, permanently to bridge the chasm that is daily gaping wider between the parties of industry, and to establish a solid formation for industrial prosperity, social improvement and national solidarity. Future generations will rise up and call those men blessed who have the courage of their convictions, a proper appreciation of the value of human life as contrasted with material gain, and who, imbued with the spirit of brotherhood, will lay hold of the great opportunity for leadership which is open to them to-day.

In conclusion let it be said that upon the heads of these leaders—it matters not to which of the four parties they belong—who refuse to recognize their industrial households in the light of modern spirit, will rest the responsibility for such radical and drastic measures as may later be forced upon industry if the highest interests of all are not shortly considered and dealt with in a spirit of fairness. Who, I say, dares to block the wheels of progress and to let pass the present opportunity of helping to usher in a new era of industrial peace and prosperity?

II. Building Men.—Democracy, in its highest sense, is not so much a management of things as an aid to all people to attain a larger life. More than any other means, industry can develop the spiritual nature of man by affording him a daily chance to show what is in him.

By using his brain in his work and by forming opinions, he learns to decide for himself. It is only when he has a choice in matters, that he considers himself responsible, and to feel responsible is requisite for self-government.

As Professor J. H. Tufts has said:²

The most important thing is that every citizen should know what is wise and best and should try to do it. Some things can be told us and taught us by others. But the greatest lessons of life we learn only by deciding things for ourselves. . . . It is when we have to decide for ourselves that we really learn in a much deeper way. When I decide for myself that I will cheat, I am deciding not only what I will do or learn, but what I will be. If I decide, on the other hand, to act squarely, I am making myself a "square" man. For no one is "ready-made." We are building ourselves and the most important acts in building ourselves are learning and choosing.

When of our own accord we choose a course of conduct with due respect for the rights of others, we are free and responsible. We are not compelled by any one, we direct ourselves just as free men make their own laws. This is one great idea of life; and the second, Professor J. H. Tufts says, is

that if freedom and responsibility are really just another name for acting conscientiously, then all men should be free and responsible. All men ought to have a chance to live a nobler life. To help the cause of freedom, then, is not merely to gain a benefit for myself; it is a part of the real business of living.

III. Equality of Opportunity.—Professor N. L. Sims has said:³

Primitive democracy was assumed to be dead-level equality. Civil democracy is, in contrast, the equality of

²J. H. Tufts, *Our Democracy*.

³N. L. Sims, *Ultimate Democracy*.

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unequals. The former is natural, the latter artificial. The equality of civilized men must be artificial because they have come to be individuals, and where such individuals are, inequality is. They are unequal in muscles, in mind, in money, in morals; and if there be any equality it must be created. What then is to be created? It inheres in a like sharing of the same rights, privileges, and opportunities. . . .

It may be doubted whether man has not a greater love for inequality than for equality. Much of the so-called passion for equality is simply due to the desire of the lower in social scale to assert themselves as the equal of those who are socially more fortunate. The spirit of inequality is conspicuously evident in the persistent and almost universal desire of man for the acquisition of personal prestige of any kind whatsoever; for the possession of anything, however trivial and valueless in itself, that may exalt him above his fellows; in short, for whatever may create an inequality, real or seeming, between him and others.

Men are not so unequal by nature as to warrant to any class the right always to rule others. Superiority is not hereditary, for mere observation shows that a few superior men are to be found among the mass. Moreover, every man possesses some hidden power, however small, which he will manifest when the right opportunity is offered. Intellect and knowledge alone do not constitute superiority; the spiritual nature of man includes qualities of character more valuable than intellectual ability. The bravest and most useful and resourceful men in the war were not always the best educated.

Industry needs leaders, not only at the top but also in the ranks. Hence, we must have inequality. But we need to select these leaders and give them prizes and honors solely on the basis of superiority. Prizes stimulate men to do their best in the competitive game of life.

They stimulate men to work harder, to think and discover more efficient ways of doing things. We cannot give prizes for excellence without noticing differences and inequalities. As Professor Tufts has said: ⁴

Equal opportunity is the necessary condition for progress. To get the benefit of prizes and honors we must first have equal opportunity. Just as in the race true honor comes from winning against those who are well trained and thoroughly "fit," so in life true honor comes from winning where every one has a fair chance. Inequality is of benefit only if we first have equality of opportunity. Where all have a fair chance, no one grudges success to the best man. Indeed, the whole joy of the sport is in having the best man win.

Coöperative management of industry opens to all a vast field for the development of any kind of excellence. It is essentially a builder of men for self-expression and self-government.

IV. Coöperation Implies Consent.—When labor requests a voice in the conduct of business, the average employer fears that an attempt is being made to undermine his discipline and to introduce incompetent and arbitrary interference into the management of his business. Therefore, the interested parties have to meet on common ground and work out a new plan for their mutual relations, with due regard for their respective rights.

If the military type of management is abandoned, it does not mean relaxation of discipline; on the contrary, men feel secure only when their relations are determined by a high standard of individual and collective conduct.

⁴ J. H. Tufts, *op. cit.*

Harrington Emerson made this very judicious remark about the attitude of employees toward discipline:⁵

In a great American business the making and enforcement of rules is turned over to a committee of the employees. It is a universal experience that no judge is as severe and unrelenting as the more righteous contemporary with the same temptations and opportunities.

Those employees are sometimes apt, when they feel their responsibility, to dictate rules more severe than any employer would dare promulgate. Where an *esprit de corps* prevails, it is not rare for good men to expel the undesirables. This, of course, is not true where antagonism to the management exists, for then any infraction to discipline amuses the whole gang.

Coöperative democratic management, founded on voluntary submission of free men to discipline, is the modern idea. Since a principle of democracy is the rejection of orthodoxy, every worker should be credited with ability to coöperate for the improvement of the methods and conditions of his own work. Besides, his consent should be obtained in building the standards of conduct with which he has to conform. His sentimental adherence to a common ideal is the very cornerstone of loyalty. If he has the right to discuss freely rules and even to advocate their revision, he can support faithfully the execution of rules which he may not approve, because he expects eventually the same support from others for rules he approves. Reciprocity of support makes for reciprocity of adherence.

The procedure of autocracy is to act first and consult afterward. The procedure of democracy is to consult first and act afterward. Again, the questions involved

⁵ Harrington Emerson, *Twelve Principles of Management*.

in industry are not all disciplinary or operative. A great many other interests must be correlated. Representative democracy in industry is representation of organized interests, with a view of arriving at agreement by the consent of the interested parties.

V. Partnership of Classes.—Professor J. R. Commons declares :⁶

In the stress of national peril American democracy called to its aid, not only distinguished individuals, but organized opposing class interests of the nation. The organizations themselves were incorporated in the framework of government. No longer were they merely private associations carrying on private contests, distrusted and even outlawed, but they were raised to the level of recognized public importance. Organized labor, organized farmers, organized capitalists became public utilities. Democracy takes on a new meaning, the partnership of classes. . . . The representative democracy is neither the imagined anarchistic equality of individuals nor the socialistic dictatorship of labor, but it is the equilibrium of capital and labor, the class partnership of organized capital and organized labor in the public interest.

To the interference of labor in management, there are natural limitations caused by the nature of the different interests of labor and management. There is no need for arbitrary surrender of power or for renunciation of natural rights, but for a proper balance of interests. When the single employer considers that labor lacks business experience, is ignorant of economic principles, has a menacing and destructive spirit, is radical, and is irresponsible, he wisely opposes any encroachment which, to his mind and even in fact, is likely to lead to a catastrophe for which he alone would have to pay the reckon-

⁶ J. R. Commons, *Industrial Good-Will*.

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ing. For an outburst of destructive energy is always to be feared when masses are suddenly liberated. Liberation, then, must be effected gradually in order to prevent abuses and educate the workpeople for the expression of positive liberty.

CHAPTER XIII

LABOR REPRESENTATION IN ENGLAND

51. Works Committees in England.—British industrial people generally agree that the root of industrial troubles has been the distrust and suspicion between employers and employed. In spite of the unifying effect of the war, this distrust may easily be revived and aggravated if its causes are not promptly ascertained, faced, and removed. These causes are given as:¹

1. The dissociation of employees from any share in the control of industry or responsibility for the conditions under which it is carried on;
2. The belief of each side that the other had secured or was trying to secure more than its share of the profits of industry;
3. The workers' fear of unemployment; and
4. The objection of some employers to associations whether of employees or employers.

Of these the first is fundamental, but it can hardly be remedied until the present conception of capital and labor as antagonistic forces whose share of profits is determined by their relative strength is banished in favor of an entirely different outlook of life, based on a frank recognition of the solidarity of society.

As a means toward self-government in industry, general opinion has favored the revival and development of works committees composed of workers and managers

¹ *Labor Review*, October, 1918.

who meet and discuss their various questions. The works committees are not an innovation, they are older than trade unions. A works committee was in existence in printing works before the end of the last century, and, in engineering and other trades, works committees, which exercised a variety of functions, existed many years ago. They have dealt with questions affecting the conditions and remuneration of labor, with works amenities, such as ventilation, sanitation, and the like, and with the social interests of labor. In some instances, they have watched over the interests of women. Usually, the older type of works committees has been composed entirely of representatives of labor, but has occasionally included men drawn from the ranks of employers, and, in such instances, have developed into something approaching a Conciliation Board. War conditions led to an important development of works committees.

This movement toward self-government in British industry has a triple origin: ²

1. From such spontaneous movements, as the shop steward movement, started by the workers themselves to get hold of the management.

2. From the initiative of progressive employers, such as Renold and Rowntree, who voluntarily abdicated some of their autocratic powers.

3. From government recommendations embodied in the Whitley Report.

52. Shop Steward Movement.—During the war, the trade-union officials had been made liable to prosecution if they organized strike. Thus deprived of their chief weapon, they lost authority and could not effectively represent the rank and file. As a consequence, the

² See *The Survey* for January 4, 1919.

workers reorganized their shops on the principle of self-government. The new conditions made necessary continuous and immediate negotiations between workpeople and management. Somebody, familiar with the shop conditions, was needed to represent the workers on such occasions. The shop steward, originally a dues collector and an official elected by the workpeople, was indicated to assume this new duty.

In commenting on the shop steward *The Survey* said: ³

But the shop stewards stand for something more far-reaching and constructive in its implications than the right to strike. They were asserting the right to an increased share in workshop management. They were doing it without consultation with the old-line officials of the unions. . . . The position of the shop steward is a detail in labor organization. But the impulse of which the shop steward is an expression is from the rank and file of the labor movement. He came at a moment of arrest when the trade union officials had been blocked by war legislation. He gathered up the dynamic of the rank and file and went ahead, while the officials had to mark time. He captured the imagination of the unrepresented workers by direct action. . . . In the hour when government officials were devising programs of workshop committees and joint councils, the shop stewards formed their own committee—a living embodiment of the Whitley Report.

Alex. Ramsay says: ⁴

We are faced with the paradoxical position that while all workers are fiercely loyal to the principle of unity in Trade Union, the rank and file by means of the shop-steward committee movement are calmly ignoring their union officials . . . such spirit is one of sheer anarchy and it is the existence of this spirit which gives rise to most of our anxiety and fear for the future.

³*Ibid.*

⁴"The Industrial Revolution," *Cassier's*, January, 1918.

Organized labor maintains that the works committees must be a part of the trade-union organization; therefore, it is generally felt that the structure of unions will be reshaped to accommodate the new function of the shop stewards. The shop stewards, moreover, are a minority of young men who have broken with tradition at the place where the fight is hardest. They seek to capture the power of final decision for the rank and file. They assert that in production the performance of every function involves the worker's right of control over conditions and processes. They represent the revolutionary element. They admit that scientific management should be introduced because the amount of national production has not been adequate to supply the full requirements of the British people. But its methods will be closely scrutinized by the works committees and admitted only in so far as they safeguard the interests, the health, and the personality of the worker. The price of admitting scientific management is the workers' control over the process of production.⁵

53. The Whitley Report.—The report on Joint Standing Industrial Councils, generally known as the Whitley Report, issued by the subcommittee of the Reconstruction Committee, to which the question of relations between employers and employed has been referred, is receiving a serious consideration in Great Britain. Among other things it states:

While there is no doubt that every industry has problems which can be solved only if the experience of every grade and section of the industry is brought to bear on them, hitherto the tendency has been for every grade and section

⁵ See "The New Constitution in British Industry," *The Survey*, February 1, 1919.

to go its own way. Whenever the government wishes to ascertain the needs and opinions of an industry, instead of an organization speaking with a single voice, a dozen organizations speak with a dozen voices. The different sections and interests are organized and can put their point of view; the industry as a whole has no representative organization; so that the general interest of the industry may be overlooked. . . . But no one in industry wants an unnecessary stoppage; these can be prevented only by the representatives of conflicting interests meeting to thrash out their differences; and all the problems that will face industry after the war call for continuous consultation and coöperation of all sections, grades, and interests. For every reason, therefore, industrial councils, fully representative of all sections and interests in each industry, are an urgent necessity. . . . What is needed is an organization representing the whole industry and capable of speaking for all the firms and all the workpeople employed in it.

What the Whitley Report suggests is a triple organization: the National Industrial Council, the Trade Council, and the Works Committees. This organization would function as follows:⁶

It is laid down that the general principle underlying the suggested Councils should be centralization of policy and decentralization of administration. The basis of the scheme, as put forward by the Federation, is that of trade councils of masters and men drawn from Employers' Federation and Trade Unions. Such a body, representing all industries, would form the National Industrial Council.

Ranking below this would be the Councils of particular industries formed in the same manner, while a third body to be known as the Trade Councils would consist of representatives of Employers Associations and the Trade Unions concerned with a particular trade or section of an industry, while Works Committees comprised of an elected body of

⁶ *The Engineer*, August 24, 1917. See also "The Industrial Council Plan in Great Britain," compiled by the Bureau of Industrial Research, Washington.

workpeople in each work would also be called into existence.

The functions of these Committees and Councils are briefly set out in the circular which has been issued. The Works Committees would report to or receive from the management complaints regarding any breaches of agreements between employers and workpeople. The Trade Council would be the first Court of Appeal in case of dispute, and would have the sole power of dealing with agreements and other matters in connection with the particular trade or section, and with any special method delegated to them by the bodies above them.

The Councils of different industries would deal with matters referred to them by the National Council, would initiate consideration of matters of general interest to the industry they represent, and would decide on points to be submitted to the National Council.

The latter would be the final Court of Appeal in cases of dispute, and would deal generally with subjects of interest to all industries, and with it would rest the ultimate decision in all matters of general policy, after ample opportunity had been given for discussion and criticism by the other Councils. . . .

Another matter dealt with relates to the step which should be taken to render agreements reached by the Industrial Councils binding, and the belief is expressed that only the power to recover penalties from funds reserved to meet liabilities involved would give the necessary guarantee. . . . There are, it is believed, many indications that the lessons of the war have convinced even trade unionists that the old rules and customs can never be restored.

The Parliamentary Committee adds that certain of the recommendations made in the Whitley Report are not only practicable, but have for long been in operation in several industries.

54. Object of the Organization.—Among the questions with which the national councils should deal or as-

sign to district councils or works committees, the report suggests the following:

1. The better utilization of the practical knowledge and experience of the workpeople.

2. Means for securing to the workpeople a greater share and responsibility for the determination and observance of the conditions under which their work is carried on.

3. The settlement of the general principles governing the conditions of employment, including the methods of fixing, paying, and readjusting wages, having regard to the need for securing to the workpeople a share in the increased prosperity of industry.

4. The establishment of regular methods of negotiation for issues arising between employers and workpeople with a view both to the prevention of differences and to their better adjustment when they appear.

5. Means of insuring to the workpeople the greatest possible security of earnings and employment without undue restriction upon change of occupation or employer.

6. Methods of fixing and adjusting earnings, piece-work prices, etc., and of dealing with the many difficulties which arise with regard to the method and amount of payment apart from the fixing of general standard rates which are already covered by paragraph 3.

7. Technical education and training.

8. Industrial research and the full utilization of its results.

9. The provision of facilities for the full consideration and utilization of inventions and improvements designed by workpeople and for the adequate safeguarding of the rights of the designer of such improvements.

10. Improvements of processes, machinery, and organization and appropriate questions relating to management and the examination of industrial experiments, with special reference to coöperation in carrying new ideas into effect and full consideration of the workpeople's point of view in relation to them.

11. Proposed legislation affecting industry.

Suggestions as to profit sharing, copartnership, or particular systems of wages are omitted, since the committee is convinced:

That a permanent improvement in the relations between employers and employed must be founded upon something other than a cash basis. What is wanted is that the work-people should have a greater opportunity for participating in the discussion about and adjustment of those parts of industry by which they are most affected.

It even wishes that industrial councils should play a definite and permanent part in the distribution of raw materials.

55. Constitution of Industrial Government.—There is no idea of any government intervention in the creation of the proposed organization; rather each trade shall be free to build up its own organization voluntarily and on lines best suited to its particular needs. Indeed, self-government precludes autocratic interference by the state.

The parliamentary committee urged that the works committees should not interfere with the questions of hours of labor and wages as a substitute for collective bargaining conducted by the trade unions. Later this recommendation was made: "In industry having no adequate organization of employers and employed, we recommended that Trade Boards should be continued or established." This means that, pending a trade-union organization, a minimum wage shall be established in these trades by public authority. Trade boards are set up by the Ministry of Labor to fix such minimum rates of wages as are enforceable by law.

Further explanation of the plan is as follows:

In a supplementary Report the Whitley committee has defined more fully its intention. The Works Committees should, as the Whitley Report proposed, be essentially joint associations; but nothing except good would come from the understanding that from time to time there may be questions which either the employer or employed section may wish to discuss separately. . . . In practice joint committees have been rare, and the opinion expressed in the Memorandum is that committees of workers only, with access to the management, are likely to be preferred generally, at least in the present preliminary stage. Even if a joint committee is suggested, the workmen should be left to determine for themselves the composition of the committee and the method of its election. The usual course is for a committee to be elected by all the workmen employed, each shop having one or more members; at the other end of the scale it may be a committee of the shop stewards of the various unions represented in the works, or, in a large works, represented by them. Sometimes non-unionists may vote, but not themselves be eligible; and perhaps half the seats on the committee may be reserved for shop stewards. Another method, which deserves special notice, is for the committee to be elected not by shops but by unions represented in the works. . . . The Memorandum says plainly that wherever it is possible "a committee of shop stewards or trade-union representatives would appear to be the best solution." The fundamental purpose of these committees as contemplated in the Memorandum is plainly to deal with grievances, and the discussion of procedure is confined to this purpose.⁷

That is why the Memorandum considers that all proposals for establishing a works committee should be brought before the trade union concerned, and the trade union should be asked to share in its formation.

56. Functions of Works Committees.—The works committees are described as practically always consulta-

⁷ *The Times Engineering Supplement*, London, June, 1918.

tives, and, though in the last resort they can induce the trade union to call a strike, the management has the executive power. The manager considers carefully every recommendation presented to him. The committee must rely on his sense of justice, and on this point E. T. Elbourne says:⁸

When a positive refusal to modify existing arrangements has been the only suitable reply, reasons are always furnished for this action. No regulation is good if unsupported by sufficient reasons. Discipline is maintained but not arbitrarily. Here has been no tendency to weaken discipline. The aim is to improve administration and augment good feeling. Nothing is done in the spirit of bargaining or concession or benevolence but as a step toward more perfect coördination.

The management reserves the right to issue instructions without consulting the committee, as when opinion is likely to be divided.

As to practical result, the Ministry of Labor announced:⁹

Committees mean discussion; discussion takes time; and from this point of view it is sometimes argued that a Works Committee may tend to slow down the pace of industry; and, again that it may be difficult to convince a committee of the value and feasibility of a new idea or process, so that the way of innovation may be somewhat impeded. These are theoretical objections. In practice Works Committees—the evidence would suggest—have improved time-keeping and increased output. . . . In practice, again, they have been the opposite of conservative, and instead of checking change they have themselves suggested change. . . . They make for better relations and greater harmony, and these are the things that matter most in industry.

⁸ "Labour Administration," *The Engineer*, September 27, 1918.

⁹ *The Survey*, February 1, 1919.

More time is gained by the absence of disputes than is lost by the presence of discussion.

57. Present Extension.—Public opinion, asserts E. T. Elbourne, may be taken to be, broadly, in sympathy with the principle of the works committee. And further quoting from *The Survey*:¹⁰

The Federation of British Industries accepted the recommendations of the Whitley Report. The Federation has a membership of 124 associations and 691 firms and individuals representing over 9,000 firms in many trades. On its central council are represented 75 per cent. of the important industries of Great Britain employing over three million workmen and with a capital of over nine billion dollars. The Trade Union Congress of 1917 accepted the Whitley Report. The Congress of 1918 called on the Government to apply it to all departments of state service.

The works committee is still in a probationary stage. Its further development will depend upon the self-control and wisdom of its members and upon its ability to increase output and efficiency. Such a development of trade unionism, however, remains an object of anxiety for many of those concerned, because it is a machinery which, centrally and still more locally, can be captured by a relatively small body of men whose influence may not necessarily be used for the good of industry and society.

58. Objections to the British Plan.—The Whitley Report is the greatest history-making document in the evolution of industrial relations. It is a masterpiece, inspired by the particular conditions of the labor problem in Great Britain. Nevertheless, from our point of view, it arouses some objections.

In so far as we can see from its application, the actual

¹⁰ *The Survey*, loc. cit.

aim of the plan is mainly adjustment of grievances. Consequently, the logical course of organization has been to strengthen the machinery for conciliation, that is, to develop unions and employers' associations which have been and are likely to remain fighting factions.

The reconstruction movement in Great Britain seems to be characterized by the lack of personal touch and leadership so necessary for arriving at a mutual understanding. The workers' representatives generally meet by themselves, and the employer dispenses concessions according to his own sense of justice.

In establishing an industrial government, the political methods of the old régime are likely to prevail. It is quite natural, then, that each party will strive first to secure a position of supremacy and to advance its interests at the expense of the other. This belligerent attitude is likely to persist. The revolt of the rank and file against their union leaders indicates the impatience of labor to assert its power, and the tendency of the rising tide of the mass to submerge its opponent. Reaction from the employer will probably follow. Moreover, the organization on a national scale is so unwieldy that it is impossible to arrive at a decision with the rapidity which is so desirable in adjusting differences. Delays increase irritation more than grievances themselves do.

Although the Whitley Report contains other possibilities, in reality the movement seems to be limited to the organization of material interests. But interest alone is a dangerous basis, because labor feels beyond the law. Any fanatic can move the mass in the name of its rights and make trouble. Reconstruction is not a mere organization of interests but should be a constructive organization for coöperation in the pursuit of collective pur-

poses. Of course, the British Government has weighty reasons for starting the organization of industry on a national scale; but this does not seem to be an example to follow in America, at least in the beginning, because conditions in industry in the two countries are different. In Great Britain, the unions are more powerful, the population is homogeneous, industry is more standardized and less varied than in America, and the organization covers a much smaller territory.

CHAPTER XIV

LABOR REPRESENTATION IN AMERICA

59. Development of Labor Representation.—For many years the old idea of collective bargaining has received practical application in this country, and even the participation of labor in management is not new; for, as early as 1902, Holbrook Porter installed a committee system in the Westinghouse Lamp Works in Pittsburgh,¹ and he claims he shortly succeeded in bringing a run-down shop into a paying business.

John Leitch claims he has installed more than forty "industrial democracies" during these ten years. The Colorado plan adopted in 1915 was the first experiment of labor representation on a large scale. But it is only since 1918 that the National War Labor Board gave the impetus to the shop-committee movement. For, by agreement with the representatives of capital and labor, the Board established the following principle: "The right of workers to organize in trade-unions and to bargain collectively through chosen representatives is recognized and affirmed."

The shop-committee idea was developed because the union officials were outsiders and unable to handle the daily internal questions of production. Therefore, machinery was needed to settle between the interested parties

¹ *Engineering Magazine*, August, 1905.

all questions of such sort, where and when they arose. The Board introduced several large organizations of shop committees for the settlement of grievances, and since that time many important concerns have developed the system for larger functions. There is no room here for a detailed survey of these organizations. For this I refer to the special literature listed at the end of this chapter.

I would not consider the welfare committee as a form of democratic government in industry, for they create a rather dangerous illusion of coöperation in management. The simpler form of organization, adequate only for small works, is the one committee system exemplified by the Workshop Council of the Irving Pitt Company at Kansas City, Mo., described by *Factory* for January, 1919.

60. War Labor Board Plan.—Another more complete form of organization is the War Labor Board committee system of personal relation, fairly illustrated by the following procedure of the Lynn plan, quoted from W. L. Stoddard.²

PROCEDURE IN MATTERS REQUIRING ADJUSTMENT

1. *Committee on Fair Dealing.*—The employees' representatives of each section shall constitute a Committee on Fair Dealing to coöperate with the Management in fostering just and harmonious relations between the Management and employees.

2. *Reference to Foreman.*—Any matter requiring adjustment may, in the first instance, be referred by the employee affected either personally or with one or both of the representatives of his section, to the foreman of the work on which the employee is engaged.

3. *Reference to the Joint Shop Committee.*—If the foreman fails to adjust satisfactorily any matter referred to

² W. L. Stoddard, *The Shop Committee*.

him, it shall then be reduced to writing and taken up by the Joint Shop Committee. This Committee shall endeavor finally to dispose of the matter and shall be at liberty to adopt such means as are necessary, including the calling of witnesses by either side, adequately to ascertain the facts and render a fair decision. Should the Committee reach a decision satisfactory to the employee originating the matter, or should the Committee reach a unanimous decision on the subject, this decision shall be regarded as terminating the matter.

4. *Reference to the Manufacturing Engineer or Department Head.*—Should the Committee fail satisfactorily to adjust a matter referred to it, a written report shall be made, together with the recommendations of the Committee, if any, and this report shall be submitted to the department head or manufacturing engineer for his attention.

5. *References to the General Joint Committee on Adjustment.*—Should the Manufacturing Engineer fail to adjust satisfactorily any matter referred to him, the question may then be referred to the General Joint Committee on Adjustment for action and report thereon to the Management. Should the Committee reach a decision on any matter referred to it which is satisfactory to the employee or employees originating the matter, or should the decision of the Committee on the question be unanimous, this decision shall terminate the matter. In case the Committee fails to reach a decision under the preceding provisions, it shall be referred to the Manager.

RECORDS OF COMMITTEE MEETINGS

Every Joint Committee shall keep accurate records of its proceedings.

MANAGER'S REPRESENTATIVE

The Manager may appoint an industrial representative to facilitate close relationship between the Management and the representatives, and at any stage in the program of proceedings the Manager's representative may be called in to

exercise his good offices. He may attend any meeting but shall have no vote.

DISCRIMINATION

There shall be no discrimination either on the part of the employees or the Management in respect to race, creed, society, fraternity, or union.

ACCOMMODATION

The Management shall provide a suitable place for meetings and defray such expenses as are necessarily incidental to the activities herein provided for.

AMENDMENTS

Any course of procedure herein provided for may be amended by unanimous vote of the Joint Committee on Routine, Procedure, and Elections.

The characteristic of the Board's system is that matters of every section are handled by its own committee. The general committee is only a body for appeal.

61. Industrial Democracy.—The so-called Industrial Democracy tends to duplicate in industry the forms of the United States Government. It is formed by a House of Representatives elected by the workpeople, a Senate composed of minor officials appointed by the management, and a Cabinet constituted by the chief executive and his staff. Both the House and Senate can appoint committees for the preparation and transaction of any matter of management.

This plan presupposes a greater similarity between industry and government than really exists. Such a view has not been shared by the War Labor Board. W. L. Stoddard discussed this point as follows:

The shop-committee system of government does not resemble the kind of representative democratic government

we have, for example, in the United States. The theory of the American government is that the people elect their servants whose duty it is to make and execute laws under a constitution, which in turn can be changed by the people. The theory of the shop-committee system form of government is that the employees elect their representatives who meet with an equal number of representatives of the management. Thus in the U. S. Government there is only one source of power, the people. In the shop-committee system government there are two sources of power. This is what is commonly called "joint control," and the various branches of the government are called "joint committees."

But the phrase "joint control" is bound to be misunderstood if it is not explained further. The relations between employer and employee in a factory having a shop-committee system are controlled jointly or collectively *up to a certain point only*. The committeemen representing the employees may be able to agree with the committeemen representing the management on a large number of important matters, but when they fail to agree, the joint method of settling disputes is at an end: the matter goes to the manager, who, being in charge of the factory, has the veto power. The manager will side either with the employees or with his own representatives. In any case his decision is final, so far as the shop-committee system is concerned. If, however, the matter in dispute is vital to the employees they may ask that it be arbitrated by outside parties and they will probably threaten to stop work if it is not left to some impartial body, such as the War Labor Board. Such a case shows clearly that the shop-committee system is not in itself complete. . . . In the U. S. Government, on the other hand, the people are theoretically supreme, and there is no veto power over them. . . . In a shop-committee system we have two different elements meeting for the purpose of adjusting and bargaining with each other.

This contrast may be seen more clearly by comparing the shop-committee form of government to the government of a genuinely coöperative industry in which the workers have

a direct voice in the management because they are **part** owners of the enterprise.

62. Works Councils.—The type of this kind of representation is the Harvester plan in which the legislative body is a large council composed of equal number of employee representatives and management representatives. This council may appoint such sub-committees of its members as it deems desirable for the conduct of its business.

The jurisdiction of the Works Council is very wide. It may consider and make recommendations on all questions relating to recreation, education, protection of health, safety, working conditions, and other similar matters of mutual interest to employees and management. But it shall be concerned chiefly with shaping the policies of the company relating to these matters. After the policies of the company have been settled, their execution shall remain with the management; but the manner of that execution may at any time be a subject for the consideration of the Works Council.

When the vote of the Works Council remains a tie, the matter is referred to the President, who shall either propose a settlement or refer the matter to the General Council of the various works or, by mutual agreement, to arbitration.

63. Results.—Although the large shop-committee organizations are too recent to warrant a conclusive appreciation, satisfaction is generally voiced as to their work. In the large organizations operated by the War Labor Board plan, "there is the same difference," says W. L. Stoddard, "between men and management as there is between life in an unorganized community and one in which law and order have been established." And he

quotes R. H. Rice, acting manager of the Lynn Works of the General Electric Company, as saying:

Through these joint committees . . . one of the chief advantages of the plan may be realized, namely, the education of the employee members of these committees in the needs, requirements, and technicalities of the business may be brought about, and through these members an education of the employees themselves may be secured which can in no other way be brought about.

J. N. Larkin, assistant to the President of the Bethlehem Steel Company, wrote:³

In making their recommendations to the management the representatives showed a full understanding of the issue involved. They were fair, open-minded, and aboveboard, and approached the many matters brought to their attention with the right attitude, considering both sides of the question, the employees' side and the management's side.

W. L. Stoddard published a list of forty-four concerns which have adopted recently the shop-committee system. The favor which it received is illustrated by the following declaration of Stephen C. Mason, President of the National Association of Manufacturers:⁴

It may be timely to record the fact that the question of collective shop bargaining, or coöperative representation, already has had earnest consideration by a large number of manufacturers throughout the country, and practical and successful plans embodying such purposes are already in operation in many important establishments. In the adoption of these industrial representation plans no question is raised regarding the membership of workers in outside organizations.

³ *Industrial Management*, June, 1919.


⁴ *Annals of the American Academy of Political and Social Sciences*, March, 1919.

These plans present methods by which employees can deal collectively, through representatives selected or elected by them, with their employers in relation to all questions and conditions of employment. They will furnish a new channel of communication between wage-earners and wage-payers whereby they may better be able to avoid misunderstandings and mutually agree upon satisfactory adjustments of wages, working conditions, etc., and promote and establish such friendly relationships and coöperative spirit as will be beneficial and to the best interests of both. Such activities are clearly within the scope of this principle of our organization.

64. Discussion.—1. The War Labor Board plan seems to be satisfactory as an introduction of democratic management and as an educational process; but it covers only a few of the questions of management.

2. The industrial democracy seems to disregard the leadership of the employer and to assume that the work people are the main source of constructive thought. There is no doubt that they can improve details and, in certain cases, have actually renovated the manufacturing process; but such wonderful results are possible only in very simple industries, and in run-down, mismanaged, or rather unmanaged, factories where common sense makes an engineer from a laborer.

3. In the other plans, the essential question of leadership is also too indefinite, and the uniform procedure of these plans in dealing with widely different questions, does not seem to protect sufficiently the rights of the employer and does not provide adequate treatment of the different matters brought before committees. A greater division and specialization of functions is a psychological as well as an economic necessity for the requirements of the different phases of industry.



65. Local vs. National Organization: I. Contrast.

—The contrast between American and British policies is marked by the tendency of the former to organize individual establishments and of the latter to organize nationally. Americans are making a democratic government in each unit plant, while the Whitley Report constitutionalizes each trade and suggests works, district, and national joint councils, which together constitute a whole industrial government.

Which one of these views is right? Opinions are divided, even in England; C. G. Renold said:⁵

And believing as I do, that the existing industrial system, with all its faults and injustices, must still form the basis of any future system, I am concerned to show that a considerable development of joint action between management and workers is possible, even under present conditions.

On the other hand, as to the practical means of settlement of the industrial question without the political and industrial turmoil which menaces England, Harry Tipper declared:⁶

This can be done best by the individual organization arranging matters with its employees. The difficulty of accomplishing this in an orderly way through organizing labor and organizing groups of manufacturers is being illustrated in Great Britain to-day in the difficulties of arriving at agreement. The ease with which it can be done in the industrial organization, provided that it is permeated by the spirit of square-dealing, is indicated by the number of organizations of this kind which have been started in the last four years in this country without any turmoil and which are successfully handling the problems as they come up.

⁵ *The Survey* Reprint.

⁶ *Automotive Industries*, April 3, 1919.

Let us see what Charles M. Schwab has to say about it:⁷

I am not opposed to organized labor. I believe that labor should organize in individual plants or among themselves for the better negotiation of labor and the protection of their own rights; but the organization and control of labor in individual plants and manufactures, to my mind, ought to be made representative of the people in those plants who know the conditions; that they ought not to be controlled by somebody from Kamchatka who knows nothing about what their conditions are. . . .

That is what I feel is our duty, as manufacturers now, if we want to preserve the situation in America. We have to study it with utmost care. Each manufacturer must study his own case and his own situation from his own standpoint and must know his own conditions. There can be no general rule that will be applicable to all. We ought to urge a continuance of work in every direction. Matters will adjust themselves industrially in this country sooner or later by the natural course of events, but what we want to prevent is that sudden slip of the cog which will give us a social jolt that may be dangerous to our industries for years to come. We must be patient. We must go along with small or no profit if necessary. We must bend every effort to keep our employees busy, employed, and satisfied. They must be made to realize the situation as we see it and be content to help us in that development. We must listen with patience to their side of the story, and we must induce them to listen with patience to our side of the story. The day of autocracy in government and labor has gone by. It is the day of democracy in which we now stand shoulder to shoulder for the protection of our mutual interests and above all for the protection and glorification of this great and glorious country of ours.

⁷ *Annals of the American Academy of Political and Social Sciences*, January, 1919.

Besides the opinion of many British authorities the other side is supported in this country also; among the advocates of this idea, Felix Frankfurter, Chairman of the Labor Policies Board, said:⁸

What American business needs is the substitution of law and order for the present conflict between anarchy and violence. . . . Not until we constitutionalize industry . . . not until we have transferred to our industrial life what we have proved and tested in our political life, will we have a law and order and peace that will be abiding.

And with much reason, V. Everit Macy maintained:⁹

If an employer does not wish to enter into an agreement with a union, that is his privilege, but he certainly cannot justly refuse to enter into an agreement on wages and working conditions with a committee representing his own employees. In dealing with a recognized union the employer has the advantage of knowing the union is protecting him from unfair competition as to wages and hours by competing firms, while a committee of his own employees can give no such guarantee. If the employers and men in an industry are thoroughly organized, wages and conditions can thus be stabilized and the turnover of labor caused by the men changing from shop to shop to get better wages can be avoided.

This unbalanced power of labor obtains in shops managed by industrial democracy; for indeed,¹⁰ "in every case wages are as high or higher and hours as short or shorter than the union scale for the district."

John D. Rockefeller, Jr., expressed the largest vision in his speech at Atlantic City when he affirmed:¹¹

⁸ *The Survey*, December, 1918.

⁹ *Annals of the American Academy of Political and Social Sciences*, January, 1919.

¹⁰ John Leitch, *Man to Man*.

¹¹ *Annals of the American Academy of Political and Social Sciences*, January, 1919.

I believe that the most effective structure of representation is that which is built from the bottom up; which includes all employees; which starts with the election of the representatives and the formation of joint committees in each industrial plant, proceeds to the formation of joint district councils and annual joint conferences in a single industrial corporation, and admits of extension to all corporations in the same industry as well as to all industries in a community, in a nation, and in the various nations.

We shall see why the question is not whether we should constitutionalize industry or not, but whether we should start with the individual concern or on a national scale. Enough has already been said to show that a national organization cannot be a starting step but is rather an ideal for progressive attainment.

II. The Unit Organization.—The actual industrial situation presents a sea of petty annoyances which have to be cleared before the real questions of labor may be sanely envisaged. Such clearing can be done in the shop only. A new mental attitude must be created, a new relationship established, and a new loyalty secured. Such a spiritual change can be accomplished only by personal touch. The start requires great initiative and discretion, and an easy procedure. As self-government develops, the questions will become more collective and less individual, and will naturally require larger machinery.

III. Deficiency of the Unit Organization.—The success of individual concerns which have experimented with labor representation does not warrant that they should stop at this stage. Their economic success is due as much to the inefficiency of their competitors as to their own efficiency. When all the concerns of a given trade shall be organized, the struggle of competition will be renewed and compel the employers to organize nationally.

In a local organization, the employer is left at the mercy of his personnel and his position with regard to competitors is unchanged. Such a position is as dangerous to him as it is intolerable; for there is no principle in the world in the name of which the employer should become a dependent. Therefore, the balancing of the powers of employers and personnel becomes a logical necessity; and, as a result, industrial organization will develop beyond the plant. The balancing of trades against one another will determine in the market of labor the respective values of the functions and services of workers. This will release the employer from the question of compensation and transfer among the different groups of workers the eventual disputes concerning wages. Indeed, in the final analysis, wages are not paid by employers but by consumers. As to cost, the scale of wages is a matter of indifference to the employers if wages are standardized. It is logical then that the organization of workers, as consumers, have a voice in regulating the wages of each group of producers.

IV. Evolution of Unions.—In England, the shop-committee movement is merged with the development of unions; whereas in the United States, from its earliest beginnings, the shop-committee movement has been neutral toward unions.

As W. L. Stoddard says:¹²

The primary function of the shop committee is, therefore, local to the plant, and shop-committee systems may exist in open shop or in closed shops without effecting any basic change in the relation of the management to organized labor. The question of relationship of the shop committee to the union appears to be a matter of relatively

¹² W. L. Stoddard, *The Shop Committee*.

minor importance, for the reason that both the labor union and the employers' union are in process of changing their functions and of adjusting themselves to the new forms of joint unions based on the principle . . . of the shop committee. It is now, therefore, seen to be the fact that the shop committee promotes unionization of the workers, just as it promotes unionization of the employers, but that it promotes that unionization for a fresh purpose and in a fresh way.

To sketch the problem in its vast outline is to acknowledge our inability to treat it adequately; for coöperation in management is still experimental. What plan is finally to be applied on a national scale must depend upon the teaching of experience. That is the reason why only the essentials can be stated at this time, and why much room is left for assumption and speculation. My justification for taking up these issues is that an analysis of the industrial problem may assist in clarifying it and in disposing of some of the fallacies which now prevent our seeing a way to its settlement.

CHAPTER XV

FUNCTIONS OF COÖPERATIVE MANAGEMENT

66. A Positive Attitude is Essential.—It is obvious that the new industrial organization must make provision for ventilating quickly the many grievances which may be voiced at the beginning of its activity. But after a certain period of readjustment, real grievances will be few, and the remaining disagreements will be only those inherent in production. The problem of labor is not merely how to settle disputes and appease unrest, but how to manage industrial affairs so as to attain indefinitely conscious progress. We must drop thinking negatively in terms of complaints and think positively in terms of constructive change or variation. Such a change in point of view is fundamental to convert hostility into co-operation.

67. Judicial Organization.—Grievances may be classified, as to the subject of complaint, into four classes. They may be formulated against: (1) persons or the company; (2) equipment and plant; (3) standard rules or lack of rule; or (4) actual conditions of trade.

The complainant presenting one of the last three types of complaint should be made to understand that his case involves no redress of wrong and, therefore, cannot be settled judicially. Such a complaint should be reshaped as a suggestion for improvement and introduced before a competent committee for constructive action. Through

such a treatment, many grievances will lose their bitterness and lead to a definite goal; that is to say, to progressive life, upon which an agreement in principle already exists. Thus, after the question of wages is settled through collective bargaining, the number of controversial matters to be settled judicially may be greatly reduced.

As to its origin, a complaint may be personal, even though it may be repeated by several persons. It may be collective, when it emanates from a particular division of the plant or from a specific group of people and when it comes from a majority of the personnel.

This classification of complaints suggests a different treatment for each case. Indeed, a personal complaint can be settled quickly by a small local committee if provision is made for appeal, first, to a small arbitration board; and, second, in complicated cases, to the general manager.

A collective case requires more than integrity; it requires the weight of the opinion of other groups. At first, it may be judged by a board of local committees; and, in appeal, by a board composed of the Works Council minus the complainants. If their decision is a tie, the matter may be referred to the general manager or to the president. The idea is to train the different groups to check each other as much as possible.

A complaint which involves the majority of the personnel may be studied and pleaded inside the plant; but, if it cannot be settled, it must be referred to an outside power such as the National Labor Board or to arbitrators or to a joint industrial council.

An example of simple arbitration is the method in force at the William Filene's Sons' Company, in Boston,

Mass., where an Arbitration Board is all powerful in discharging, fining, or otherwise disciplining the employees of the store:¹

If an employee feels that he or she has been unjustly discharged or fined, the case is brought to the Arbitration Board, which is composed entirely of employees duly elected by the coöperative association. The case is tried as in a Court, both sides being heard either in person or represented by some one acting in his or her place. The decision of this board is final: neither side can appeal from it.

This plan has been in existence for a number of years, and the Arbitration Board has tried many cases. The decisions are considered satisfactory by the firm, even though they seem to be about equally divided in placing the blame. A large number of the decisions were reviewed some time ago by the well-known jurist, Judge Brandeis, and pronounced as fair and as equitable for all concerned as the decisions of the average court of the country. This indicates clearly that the decisions do not unduly favor the employee. It also shows what has been shown in similar cases—that imposing responsibility on any one of average intelligence makes him more careful in his judgment and prevents extreme radicalism more effectually than anything else.

The capital point is to get quick settlement of complaints, lest the enervation caused by anxious expectation create greater discontent than the offense itself. If the man at the top is within the reach of any one at any time, the number of difficult cases may become very small. Experience has shown that the appeal to the chief executive is seldom resorted to; the possibility of his interference is generally sufficient to maintain order and confidence.

68. Labor's Responsibility.—The new idea is to introduce the principle of self-government in industry. In

¹ *American Machinist*, August 1, 1918.

government, freedom from restriction has been granted by decrees, but it is mere liberation and is only negative freedom. Positive freedom is that of expression. Such freedom cannot be granted; it must develop gradually and its development is a part of the real business of living. The new freedom in industry is self-expression in co-operation; it implies responsibility for acting conscientiously toward others as well as for regarding the consequences of our own actions. We learn by our mistakes, but, in industry, mistakes are expensive. Consequently, the employer, who must pay for the mistakes of labor as a party in management, should be properly protected. Here is another difference between industry and politics. New rights imply new duties; the problem is to distribute rights as well as duties to those to whom they belong and avoid destructive tendencies. It is important to remember that the responsibility of labor is mainly moral, the financial responsibility, on the other hand, rests with the employer, who must have a chance to express himself accordingly.

69. Employer's Responsibility.—The success and expansion of business depends primarily on management. It clearly follows that employers must be unmolested and unhampered in determining the amount and quality of their products and must bear the responsibility for the manufacturing process. This is the fundamental condition of the successful conduct of business. The managers of industrial establishments must be protected in their right to operate their plant according to the technique of their trade and according to legal regulation. Industrial conditions demand free exercise of individual judgment and initiative, without which there would be little, if any, incentive to engage in business enterprise. They

demand, therefore, a frank recognition of the province of management.

We cannot consider industry from the point of view of run-down workshops. The large modern enterprise attains a high degree of perfection. It is primarily initiated by an entrepreneur, aided by an engineering staff. Until the plant is ready to operate, there is no personnel to consult; consequently, it is designed according to the best judgment of technical experts. Since to do this takes all the ability and attention of a considerable staff of highly trained and experienced engineers, it is absolutely impossible to assume that laborers can have a voice in determining the actual method of manufacture. Such interference would mean the end of engineering to which we owe the whole of our industrial attainments. The difference between former and present attainments is effected by the difference between true engineering and common sense. Now this does not mean that labor should not have a voice as to its relation to these methods, to which it must adapt itself. Speaking of industry in general, it is impossible to determine exactly the part of labor in management. There is no common policy which can apply indifferently to steel mills, shoemaking, textile factories, and machine shops. For example, in a steel mill, labor is interested in having a charging machine and door-opening devices at the furnaces, but it cannot expect to have a voice in determining the type of furnace or the operation to be performed in it. This must remain the unquestioned province of the management, because it is alone responsible and competent.

70. Leadership.—The opinion of the people is not necessarily right because it is collective. The truth of such opinion must be scrutinized as to whether it does or

does not lead to real progress. Self-government is not the willful, capricious determination of certain people to assert themselves and choose their way of working and living. Rather it is the free adherence of people to policies which, rightly followed, will advance human progress. This is the test of self-government.

Leadership, based on authority, has gone forever. This destructive leadership which looked upon work as the aim of life, even at the price of human life, is doomed. But this does not mean suppression of leadership, for the mass has never made progress. Indeed, it is not the laborer who designed machinery which magnified human power a thousandfold. The valuable contribution of the laborer in improving details does not impair the truth of this statement. It is not the laborer who organizes large enterprises. It is not the laborer who furnishes great examples of progress, such as making the Panama Zone sanitary; and, except in cases of gross negligence, it is not the laborer who sees the danger to which he is exposed. Our era of coöperation needs leadership more than ever; but the leadership of to-day is based on superiority. It is a constructive leadership that supports, guides, and inspires; that increases the powers of man; that interprets human aspirations and points the way toward progress. A mere agglomeration of men decreases the value of individuals; whereas, under proper leadership, the individuals, composing a collectivity, can accomplish more than the same individuals can separately. Animated by the spirit of the leader, they share his superiority.

The élite from among which leaders may be recruited is small. Although superior men are found in all classes of society, it is evident that the untrained man must

first be well informed before being able to direct others in the intricacies of modern business. Leaders will appear from the rank and file, but their influence must be limited to restricted groups and to special lines. They themselves must be inspired and led by a higher coördinating leadership upon which all activities of a given industry depend. The higher ideals and the coördination of specialized efforts in large-scale industry is far beyond the scope of workpeople. That is why the idea of self-government springing from the bottom of society is Utopian. Such self-government would deteriorate industry. This idea arises from sheer belief, based on superficial observation of particular cases. Workingmen sometimes become captains of industry, but only if they have educated themselves.

71. Differentiation of Interests.—The many different interests connected with the business of production, with bargaining for wages, with works legislation, with adjustment of grievances, with welfare works, and with social institutions distribute differently responsibility, leadership, and power and suggest that a particular treatment should be applied to each of these activities. It seems that the secret of success in coöperative management consists in drawing a multiple constitution with special provisions governing each interest and defining the powers and procedure proper to each interest. Uniform treatment of all questions is likely to cause inefficiency, confusion, and abuses; and it is to be feared that, in the long run, the representative body degenerates into something quite different from its initial purpose. Remember that French syndicalism started as an employment bureau.

Even the right spirit of coöperation does not free

people from the bias of their immediate interests; so, organization should be devised in order to check and balance the powers of every group, according to respective rights and duties of those groups. Thus, we are led to the following classification of interests and organizations: some are local; others are industry-wide.

I. Local Interests:

1. The Business Organization creates between management and labor a point of contact for imparting the right conception of business and getting the point of view of each, in order to promote reciprocal good will. It offers to labor an opportunity to coöperate in production by mere recommendations.
2. The Economic Organization is the bargaining body which decides the ultimate clash of financial interests. In bargaining, employer and employees have equal power.
3. The Works Rule Organization legislates and standardizes the shop rules. Although the powers may be made equal, greater initiative and discretion might be left to labor in these matters.
4. The Judicial Organization adjusts real grievances. Its procedure and powers are adapted to the types of complainants, such as persons or groups.

II. Industrial Interests:

5. The Welfare Organization studies the welfare works which interest equally all the establishments of the same trade. In this field, experts lead and the resolutions of the committees are mere recommendations, since they generally involve investment which needs the approbation of the Board of Directors.

6. The Socio-Industrial Institutions may be more or less autonomous according to the interests involved.
7. The Social Union, for recreation, education, and mutual assistance, must be absolutely autonomous.
72. **Constitution.**—At the present stage of development of committee management, the constitution of labor representation cannot be standardized. It must be a particular arrangement devised for each concern according to the kind of industry, the number of employees, the number of plants, the kind of people employed, their actual attitude, and other particular conditions.

The constitution comprises six parts as follows:

1. The object, which is the organization of a system of proportional representation in order to establish a relationship of justice between employer and employees and to promote common welfare and progress through co-operation with good will.

2. A description, with a chart of the different bodies of the organization showing their composition, their relations, and their attributes. This part defines the districting of the works, and the number of representatives, which varies from one for 25 to one for 300, in order to keep, whenever possible, the number of workers' representatives below 100.

3. A code of terms, qualifications, and procedure for the nomination and election of representatives.

4. A code of procedure for the conduct of the work of the representative bodies, showing clearly the difference of authority pertaining to each group of interests, that is to say:

- (a) The advisory power of the business organization.

- (b) The bargaining power of the economic organization.
- (c) The legislative power of the works rule organization.
- (d) The judicial power of the boards of arbitration.
- (e) The coöperation in welfare institutions.
- (f) The autonomy of the social union.

The distribution of powers to each group of interests may be impressed and maintained among the Works Council not only by different procedures, but also by a difference in the physical arrangement of the meetings. The meetings of the councils may be held in different rooms, or may provide a different sitting arrangement and have a different chairman, according to the kind of interest dealt with. Such a method, particularly in large organizations, can help to maintain the proportion of the powers attached to each representative function and prevent the debates from deviating from their initial purpose.

5. A code of principles and policies, governing the relations between the management and employees and guaranteeing the free speech of the representatives, and the protection of the employees against any discrimination because of race, or sex or membership in any religious body or labor organization. An oath of office may be administered.

6. A provision for the amendment and even for the termination of the plan.

CHAPTER XVI

COMMITTEE ORGANIZATION

73. Proportional Representation.—Coöperation in management demands, first of all, proportional representation of all interests involved in industry. Adequate representation of management is as necessary as adequate representation of labor. The management must reorganize itself and create new functions in order to deal with the organization of workers. The qualification of representatives is a direct knowledge of the work and of the particular matters in which they are in charge. Besides, the management representatives must possess a large share of tact and discretion, together with ready willingness to “play the game” in accordance with the new rule. Proportional representation of the interests of the management is secured not so much by the choice of its representatives as by the powers attached to their functions outlined in the preceding chapter.

Proportional representation of the many interests of labor is a very delicate question. W. L. Stoddard, who has studied it with much detail, says:¹

The districting of a plant brings to a head and focus all the most vital problems in shop-committee government. A perfect basis of representation is probably an unattainable ideal. But a satisfactory basis of representation can be reached if the joint committee comes to the task in the right


¹ W. L. Stoddard, *The Shop Committee*.

spirit and takes as its guide the principles which have been worked out in the laboratory of experience, remembering always that, like any system of government, a shop-committee system is subject to change and needed revision.

The essential body for full coöperation in management consists of a Works Council composed of equal numbers of representatives elected by employees and of representatives appointed by the management. Besides, a Social Council should be elected by all without distinction.

The size of the Works Council, as well as its many assumed functions of councilors, bargainers, legislators, spokesmen, propagandists, and judges, would render its work very inefficient if it had to treat all questions in full sessions. It is more efficient and practical to transact business through small committees appointed from their number by the representatives. The functions of such committees are to specialize in the various questions of management, to investigate the facts, to study the problems laid before them, and to present to the attention of the Council perfectly digested reports with recommendation. Such a procedure develops high ability, while it corrects the influence of the possible bias of the specialists' type of mind and secures prevalence of reason over sentiment.

An organization of committees, developed to cover the different lines of coöperation in the management of a typical industry, is given in the following section. The object of this presentation is merely to show how the principle of proportional representation can be applied by delegating different powers to different committees. It is clear that every concern must be organized according to its particular conditions and requirements. The number, the composition, and the attributes of the com-



mittees vary to suit the management and the personnel.

In spite of their leadership, the president and general manager do not sit on the committees, except on the conference and bargaining committees, because they should keep the broadest point of view in order to coordinate the various tendencies of the specialists.

In his capacity of spiritual organizer, the director of the personnel has a place in many committees; moreover, he has to see that the proper attention is given to every question interesting the personnel. The other representatives of the management are suggested as mere examples of competency.

The councils and committees elect their chairman from their number. The secretary to the Works Council and to committees may be appointed by the management, since he has no voting or executive powers. His functions are: (1) to record the minutes of deliberation in suitable forms; (2) to convey the records to the council or to the proper officer for execution; (3) to file the records in order to make available a code of precedents; (4) to direct and record investigations; (5) to coordinate the work of the various committees; and (6) to advise and educate the committeemen in the procedure and interpretation of the rules and, by using tact and discretion, to modify an unreasonable request into one more likely to meet the management's approval.

An honest and frank personality can do much to dispel the suspicion of the workpeople and to educate the committeemen to take broader views. In a large organization, such function may depend upon a special Department of Industrial Relations, headed by the director of the personnel.

The spirit of the representative system should be en-

tirely democratic; there should be the initiative, the referendum, and the recall. The records of all committees and councils should be open to every employee desiring to consult them. Moreover, special notice of the activities of the committees and councils should be posted on the billboard or given in the home paper, in order to keep alive the interest of the workpeople.

The worker representatives should have the right to meet by themselves as well as jointly with the management.

The suggestion system is the means by which the employees bring to the attention of the committees the matters they desire to have discussed. These matters should be put down in writing and signed by the writer. The suggestion system is a vital factor in the successful operation of the committee system.

74. Committee Organization.—Following is an outline of committee organization for coöperative management in a typical industry:

I. SHOP COMMITTEES ON LOCAL INTERESTS

A. Business Organization

I. COMMITTEE ON PROMOTION

Composition.—Five worker representatives; eventually five management representatives.

Objects.—1. To study the plan of representation and recommend a formula of constitution to the Works Council.

2. To make and develop the electoral division of the works.

3. To conduct elections.

4. To recommend the establishment of new committees and determine their attributes and sizes.

5. To coördinate the work of the various committees.

6. To arrange the time and place of meetings.

7. To settle standard procedure and methods of arriving at decisions.
8. To settle standard methods of investigating cases.
9. To determine how to make and keep the records of meetings.
10. To determine the compensation for committee service.
11. To supervise the functions of the representative bodies and hear of their deficiency.

2. CONFERENCE COMMITTEE

(Possibly with sub-committees.)

Composition.—Five worker representatives; general manager, sales manager, director of production, director of personnel, cost accountant.

Function.—Educational and advisory; point of contact between manager and employees.

Objects.—1. To impart the point of view of the management and get the point of view of labor in order to arrive at agreement about business policies regarding questions like the following:

- (a) Necessity for increasing or decreasing production.
- (b) Reasons why the methods, the product, or the quality should be changed.
- (c) Establishment of new departments or the reorganization of existing departments.
- (d) Sales coöperation.
- (e) How changes may be carried out with the least trouble for those involved and to correlate tenure of employment with trade prospects.

2. As to its educational function, this committee can explain matters as:

- (a) The economic significance of investment, cost, output, burden, profit, bad work, efficiency, etc.
- (b) The market conditions, the commercial difficulties, the margin of profits, the requirements of customers, and statistics of business.
- (c) The accomplishment of the technical, sales, purchasing, and financial departments in relation to production.

3. SUGGESTION COMMITTEE

Composition.—Three worker representatives; three management representatives.

Object.—To receive all suggestions, make a preliminary examination and direct to special committees those which seem valuable. Eventually to modify crude suggestions into shape suitable for consideration.

4. OCCUPATIONAL COMMITTEES

(One for each trade.)

Composition.—Three worker representatives of a given trade; foreman, director of operation, director of personnel.

Power.—Advisory.

Objects.—1. To impart ideals of operation, present the manufacturing problems which confront the management, and concentrate the attention of the workers upon particular questions.

2. To standardize methods, equipment, conditions of operations, and specialization.

3. To examine suggestions on operations and equipment, to order designs and experiments, take patents, and reward the promoters of valuable ideas.

4. To study the prevention of spoiled work.

5. SCIENTIFIC MANAGEMENT COMMITTEES

(One for each division.)

Composition.—Director of production, efficiency engineer, superintendent, foreman, director of personnel; five worker representatives.

Object.—To promote and develop scientific management.

6. MATERIAL EFFICIENCY COMMITTEES

(One for each trade.)

Composition.—Five worker representatives; director of personnel, efficiency engineer, storeskeeper, cost accountant, purchasing agent. (In many cases three representatives of each side will be sufficient.)

Objects.—1. To study the elimination of waste in material.

2. To study methods of distribution and preservation of material.

3. To determine standard and actual consumptions.

4. To determine the method of ascertaining the saving.

5. To determine premiums on savings.

B. Economic Organization

7. INVESTIGATION COMMITTEE ON EXTERNAL ECONOMIC CONDITIONS

Composition.—Three worker representatives; director of personnel, sales manager, industrial engineer.

Object.—To investigate cost of living, local and national scales of wages, conditions of the labor market, and trade prospects. To keep in touch with outside similar organizations.

8. GRADING COMMITTEES (One for each trade.)

Composition.—Five worker representatives; director of personnel, efficiency engineer, director of operations, and two foremen.

Objects.—1. To designate each occupation by a standard name.

2. To determine the qualifications required by each occupation.

3. To specify and differentiate the various grades of workers.

4. To determine the methods of selection of employees.

9. HOURS AND WAGES COMMITTEE

Composition.—Five worker representatives; general manager, director of personnel, industrial engineer, cost accountant, and foreman.

Objects.—1. To determine the total number of weekly hours.

2. To bargain and readjust standard wages for a given period.

3. To report to the Works Council for ratification of its recommendations. Further references may be provided to settle disagreements.

10. PIECE AND BONUS RATING COMMITTEES

(One for each trade.)

Composition.—Five worker representatives; superintendent, director of operations, director of personnel, efficiency engineer, foreman.

Object.—To determine or change the conditions of operations and corresponding rates and fix the date when agreements terminate. Its resolutions are subject to ratification by the Works Council.

11. STANDARDS COMMITTEES

(One for each trade.)

Composition.—Five worker representatives; director of personnel, efficiency engineer, director of operations, time-study man, foreman.

Object.—To standardize the methods of rating and conditions of operations.

12. SUPERVISION COMMITTEE

Composition.—Five worker representatives; cost accountant, financial manager, legal councilor, industrial engineer, director of personnel.

Objects.—1. To determine the method for arriving at the factory efficiency in case of economy sharing or collective bonus.

2. To see that savings are shared according to the rule.

3. To see that the laws of the State and the rules voted by the Works Council are lived up to.

C. Works Rules Organization

The committees of this series may be composed, in regular meetings, of worker representatives only; but they should be called frequently, either separately or in general



session, by the general manager to impart his inspiration and guidance and keep himself in touch with his organization for his own inspiration and guidance.

13. TIME COMMITTEE

Objects.—To determine:

1. Starting and stopping time, meal hours, pause, over-time.
2. Night work, arrangement of shifts.
3. Vacations and holidays.
4. Time-booking arrangements.
5. Arrangement of transportation facilities.

14. EMPLOYMENT COMMITTEE

Object.—To determine the methods and conditions of hiring, discharging, suspension, leave of absence, transfer, and promotion.

15. DISCIPLINE COMMITTEE

Object.—To draw shop rules and supervise the maintenance of discipline, time-keeping, tidiness, cleanliness, smoking, and high standards of behavior.

16. SHOP COMFORT COMMITTEE

Object.—To supervise the services of heat, light, ventilation, drinking water, washing accommodations, drying clothes, and make provision for seats, shelters, etc.

17. DINING ROOM COMMITTEE

Objects.—1. Arrangement and supervision of dining room.

2. Provision for food supply.
3. Regulation of prices.
4. Suggestions about service.

18. GRADES' INTEREST COMMITTEES

In order to complete a proportional representation a series of committees should represent respectively the dif-

ferent grades of workers, such as laborers, apprentices, semi-skilled, skilled, and women, irrespective of occupations.

Object.—To formulate collective grievances and ideals for group development.

II. SHOP COMMITTEES ON INDUSTRIAL ENGINEERING

A. Welfare Organization

19. DEVELOPMENT COMMITTEE

Composition.—Industrial engineer, construction engineer, safety engineer, production director, hygienist; five worker representatives.

Object.—To make recommendations about the development of working conditions of the trade.

20. SAFETY COMMITTEE

Composition.—Safety engineer, industrial engineer, construction engineer, director of personnel, legal councilor; five worker representatives.

Objects.—1. To study safety devices.

2. To elaborate safety rules and instructions.

3. To promote education for safety.

4. To promote safety standards.

5. To investigate accidents, place responsibility, and make recommendations.

21. HYGIENE COMMITTEE

Composition.—Hygienist, physiologist, industrial engineer, efficiency engineer, director of personnel; five worker representatives.

Objects.—1. To install and supervise the department of health and sanitation.

2. To conduct researches about hygienic conditions and prevention of occupational diseases and poisoning.

3. To disseminate information about hygiene.

4. To study the effects of fatigue and draw conclusions,



and to determine the physiological requirements of occupations.

22. SECURITY OF EMPLOYMENT COMMITTEE

Composition.—Industrial engineer, director of personnel, employment manager; three worker representatives.

Object.—To study the stabilization of the labor market.

23. BETTERMENT COMMITTEE

Composition.—Industrial engineer, construction engineer, physician, director of personnel, superintendent of the building; five worker representatives.

Object.—To install and develop betterment works, as lavatory, lockers, rest room, emergency room, hospital, lunch room, club room, library, and like appropriations for comfort and hygiene.

24. STATISTICS AND PUBLICITY COMMITTEE

Composition.—Industrial engineer, cost accountant, doctor hygienist, safety engineer, director of personnel; five worker representatives.

Object.—To study comparatively the conditions of work and publish the results of improvements.

B. Socio-Industrial Institutions

25. INSURANCE ORGANIZATION

Under the leadership of the financial manager and the legal councilor.

1. *Sickness and Death Benefit Committee.*—Five worker representatives.

2. *Old-Age Pension Committee.*—Five worker representatives.

3. *Accident and Life Insurance Committee.*—Five worker representatives.

26. EDUCATIONAL WORK

Under the leadership of the director of education, the

director of personnel, the director of operations, and the industrial engineer.

1. *Vocational Guidance Committee*.—Three worker representatives.

2. *Apprenticeship Committee*.—Three worker representatives.

3. *Trade Technique Committee*.—Three worker representatives.

4. *Library Committee*.—Three worker representatives.

27. HOUSING COMMITTEE

In out of town places, the company may have to participate directly in social works, in which its financial manager and directors will find opportunity for leadership and investment. The financial policy of the company will determine the composition of this committee.

III. SOCIAL UNION

This organization should be managed by a Social Council elected by all grades of office and shop people of both sexes without distinction.

28. RECREATION COMMITTEES

(One for each activity.)

Object.—To organize clubs, musical societies, sports, outings, and other social events.

29. COÖPERATIVE STORE COMMITTEE

Object.—To promote the organization of coöperative societies by furnishing information and encouragement.

30. COST OF LIVING COMMITTEE

Object.—To study the market conditions, the reasons for the high cost of commodities and to propose measures for improvement.

31. EDUCATIONAL COMMITTEE

Object.—To promote and supervise schools, domestic-science courses, and courses in Americanization.

PART III

ELEMENTS OF HUMAN ENGINEERING

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CHAPTER XVII

THE COLLECTIVITY VS. THE INDIVIDUAL

75. Introduction.—I know of an employer of the old school who had formed, during his long career, a large body of employees whom he thought perfectly loyal and contented. His methods were evolved out of his fancied deep knowledge of the feelings, needs, and characters of his men. But once he had a very great disappointment. Contrary to his custom, he went into a room separated from another by a thin, board partition, so that through it conversation could be distinctly heard. He heard workers violently criticizing his policies, and in a burst of anger one said, with general approval, "The only thing he deserves is that we should set his shop on fire."

The employer wanted to protect himself against such a menace and decided to discharge the offenders, who, he thought, must be new recruits. He was not a little surprised to recognize two of his oldest men, who had been in his service for about twenty years. A seemingly peaceful personnel was full of hidden discontent which the employer had failed to discover.

On another occasion, I was present at a meeting of an employer and one of his employees, at which the former deftly endeavored to convince the latter of the fairness of an undesirable policy. The worker listened silently without showing the least mark of approval or disagreement. Finally, irritated by the unresponsiveness of his

auditor, the employer asked sharply: "Why don't you say something?" And he got this typical answer: "Well, you must be right since you have the money. As for me, the only thing I dare do is to maintain the attitude of respect which I owe you." Yes, that external attitude of respect and submission is mistaken by many an executive for a tacit agreement with his policies and a confirmation of his knowledge of men; while in reality a spirit of criticism, which turns finally into a spirit of revolt, is developing.

The reasons why workers indulge in such misrepresentations are manifold. First, they soon learn by experience that their employer is a better talker, and it is of no use to start a discussion with him. Then, the slightest opposition is too often looked upon as a breach of loyalty; so, for fear of punishment, it is safer to submit. Each act of real or fancied oppression, considered alone, is often not important enough to justify taking a chance and making trouble; further, the bargaining powers of the parties are too unequal; and, finally, passive submission has been the attitude of the average man since the formation of society. Consequently, the average executive knows neither the character of his men nor the spirit of his shop, because, from his position, he sees but a willfully distorted image of reality. Custom and daily necessities have created insincerity, which is the cause of a great deal of misunderstanding.

Although it is generally admitted that there are agreeable and reasonable fellows among the workingmen, the most misleading conceptions are perhaps formed by generalizing from dominant features of certain men supposed to represent their class. The image built up from such superficial observations is but a caricature in a nar-

row frame. In the handling of men, such rude conclusions are no longer permissible. Therefore, we shall proceed to an elementary study of psychology. I shall not treat individual psychology, however, except to show briefly the influence of environment upon the individual. This discussion is an application of collective psychology, for, indeed, labor constitutes at present a new collective personality which we must be able to handle properly.

76. Personality.—The spiritual nature of man presents in part stable traits of character or instincts and in part variable traits acquired by experience. We have to utilize the former as they are; we can control the latter. Man has been defined as a self-made, never finished work of art. A self-governing man acts and reacts on his material, moral, and social environment, in order to adapt it to himself and himself to it. His personality is constantly in the making.

The great joy of life is the exercise of the mind's power to create more satisfactory relations, in terms of actual or prospective pleasure and of avoidance of pain. Every order of things has its origin in thought and its completion in concrete manifestation of that thought. The mind forms ideals of what may or should be, and expresses them by ideas which are¹ "the intermediary and conscious forms of action between ideals and material conditions." If I devise a way to increase my efficiency, I change myself in order to increase my power over my environment. My new way will in turn influence me and suggest other ideas of larger power or better adaptation. This process is thus a continual response to the demand for a reciprocal adjustment between man and his environment. But, whether he knows it or not, every action,

¹ Fouillée, *Les Idées-Forces*.

which follows a responsible decision, changes a man more than it changes the outside world. The all important thing, therefore, in building man is the kind of decisions he makes.

Thus, in the course of his everyday life, man builds up his personality by reshaping and coördinating his ideals, habits, tendencies, sentiments, and ideas in relation to one another, in relation to the conditions and interests of the group to which he belongs, and in relation to the social atmosphere in which he lives. The influence of his environment is thus a determinant factor of what he will be. But our conceptions of things and our reactions to stimuli not only depend upon our sex and character, but they vary with age, education, occupation, situation, place, and time. Consequently, personality is essentially a variable thing; all the more so that the reaction of any individual to his environment is quite peculiar to him. This is why brothers, for example, who have the same ancestry, the same environment, and sometimes the same experience, may differ altogether.

77. Morality.—Social life is dependent upon the conduct of the individual with respect to society. Consequently, society has developed certain rules of conduct which have proved to be beneficial to mankind. Morality is the practical conclusion of experience expressed by conscience; it represents the will of society. Professor Fouillée says: ²

The principle of morality, therefore, is the consciousness of the fact that a fuller life for the individual implies a fuller life for others. The idea of "others" is the idea-force in morality. Duty is a creation of our mind by which we

² Fouillée, *La Morale des Idées-Forces*.

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compel ourselves to produce the best within us and without us for the realization of the moral idea.

There is some tragedy in the disinterested determination which compels self-denial; but there is no morality without abnegation and there is no abnegation possible without a greater ideal, subordinating the individual to society. The problems of the day cannot be solved but with consideration for universal principles which subordinates the individual and actual tendencies. The present depends upon the eternal.

As to moral obligation, G. Le Bon says:³

The only moral conflict is the common contradiction between individual and social interests. The individual is influenced only by remote reasons to devote himself to the general interest. However, a society has no possibility of duration unless by the identification of these two interests. . . .

The force of a moral belief . . . impels the individual to unify these two ideals and to feel as proud of the success of his collectivity as of a personal success. As soon as the collective ideal disappears, the individual sees but his personal interest, feels no reason to sacrifice himself for an interest which is stranger to his own and he becomes indifferent toward the general good.

Morality, therefore, is founded upon a universal element of human nature: consciousness of relations to others. Conception of duty is a feeling of oughtness which arises from intelligent and free choice of conduct of higher relative excellence. Compliance with duty is not so rare as some believe. In industry, every day, thousands heroically stand danger and injury in order to secure the safety of others or merely to satisfy their desires. In business, all operations of credit are founded

³G. Le Bon, *La Vie des Vérités*.

upon sense of duty, and in civil service, policemen and firemen, to cite the most conspicuous, give daily examples of self-sacrifice.

Christianity first taught that the spring of morality is not to be found in laws but in the conscience of individuals, for there is erected a tribunal which has final jurisdiction in matters of right and wrong. In practice, however, morality has not proved always to be effective. Some causes are: (a) the bias caused by interests and mental deformations; (b) the attempt to apply the moral law for private instead of social interests; (c) the ignorance of higher social obligations; and (d) the inability to live up to our standard of right. Says G. Le Bon:⁴

Social necessities are the real generators of moral rules and are indispensable for their maintenance . . . but a society is not homogeneous; it is composed of different groups possessed by particular interests, from which result independent moralities which are quite at variance with the general interests. Hence we are confronted with personal morality, group morality, and social morality. The conflict of these forces is solved by the stronger tendency at the moment.

Individual morality depends upon individual character. It attains its highest expression in the sentiment of honor, which regulates the conduct of the individual in such a way as to retain his own esteem as well as that of others.

Group morality is the control that imperative necessities exercise upon the individual member of the group, in order to force the individual to support his group; as, for example, the obligation of workers to join unions.

Social morality is the collective categorical imperative

⁴ *Ibid.*

dictated by the instinctive tendencies of mankind to realize the larger life of society. The new obligation for groups of laborers to live up to a contract, even though it may not give all they are entitled to, springs from such a social necessity.

Moral law is a pressure and a guidance exercised by the collectivity upon its individual members; for they must assimilate to the social world. To the workpeople, coöperation is not yet a command of conscience; but it will become so when they comprehend the idea of service and when they awaken to a better sense of the meaning of worth and dignity. On the other hand, as Dean Joseph French Johnson said:⁵

Responsibility and duty are usually commensurate with power and authority; hence the head of a large business with many employees subject to his will carries upon his shoulders serious duties as well as responsibilities. . . . Economics teaches that in general the rate of wages is fixed by the law of demand and supply. . . . But the laws of political economy are based on conditions as they exist, not on conditions as they ought to be. This fact the enlightened business men of to-day are beginning to understand and are recognizing it as their duty to improve the conditions under which men work. The relations of employer and employee are more than economic. They are personal and ethical.

78. Beliefs.—Morality includes two sets of rules: one, relatively fixed, which depends upon the soul of the race; another, more variable, which sustains the actual aspirations of the different collectivities. Since society is in constant evolution, there is no final truth for man. Consequently, moral obligations change to suit actual necessities. New rules are imposed upon us when we

⁵ J. F. Johnson, *Business and the Man*.

change our belief as to right and wrong. Beliefs are thus the spring of future rules. These new rules at first constitute a constraint; but when, by habit, discipline has become unconscious, they control man from within and he feels free in action. Change of belief involves a corresponding change of morality. As to the beliefs which determine the evolution of civilization, G. Le Bon declares: ⁶

The civilization of a people is based on a small number of fundamental ideas, which determine its institutions, its literature, and its arts. These ideas come very slowly into being, and they are also very slow to disappear. Long after their erroneous nature has become clear to cultivated minds, they remain indisputable truths for the masses and continue to exert their influence on the rank and file of a nation. It is difficult to obtain recognition of a new idea, but it is no less difficult to discredit an idea that has been long generally accepted. . . . The life of a people, its institutions, beliefs, and arts are but the visible expressions of its invisible soul.

Civilizations are the result of a few fundamental ideas, and when these ideas change, the civilizations are compelled to change as well. The Middle Ages existed on two principal ideas: the religious idea and the feudal idea. Its arts, its literature, and its entire conception of life are derived from these ideas. At the time of the Renaissance these ideas underwent some modifications; the rediscovered ideal of the old Greco-Latin world implants itself in Europe, and at once the conception of life, the arts and literature begin to be transformed. Then the authority of tradition is shaken, scientific truths substitute themselves gradually for revealed truth, and civilization is once again transformed.

From that time on, the world has changed. Later, in the early Nineteenth Century, the industrial era began as an expression of a demand for a fuller life. This new

⁶G. Le Bon, *Psychology of People*.

ideal has slowly penetrated all classes. Nowadays the fundamental beliefs of our civilization which dictate our conditions of existence, mold our tendencies, and form our institutions are the beliefs in democracy, in solidarity, in liberty, in social justice, and in the right of all to happiness. In industry, we believe in larger production, in efficiency, and in service. All these beliefs are shaping the new rules of morality. The splendid unanimity of the American nation, rising as a man to fight, at the cost of its blood and wealth, for the ideals of democracy, showed more convincingly than words could do that these ideals have become the essential elements of the American soul. The power of these beliefs is irresistible; no force can successfully oppose their final mastery. The present social unrest is the expression of the driving power of these beliefs and of the impatience of people to hasten their fuller realization.

The conflict between individual liberty and social justice, however, is evident. Hence it is not surprising that secondary truths, as, for example, the principle of ownership, have to undergo continually new limitations in order to follow the readjustment which incessantly goes on.

The great sympathy which to-day binds men in what is called universal solidarity is a manifestation of human conscience quite unknown in the past. It is a new conception of our relations to others which has changed our morality from passive charity to constructive association with others. The old idea of duty was that the rich should be charitable and the poor submissive; the new idea which springs from the feeling of solidarity is coöperation of all. Solidarity is supported by its usefulness. It is a revelation to mankind of its spiritual unity.

CHAPTER XVIII

THE COLLECTIVE SPIRIT

79. Types of Associations.—The universal growth in importance of different groups of people makes our time the era of associations; and, as G. Le Bon said, "the collectivities are like the sphinx of the antique fable; one must solve their psychological problems or resign himself to be devoured by them."

An association may be formed of heterogeneous or homogeneous elements. Its object may be expression of mere primitive impulse, such as rioting or mutiny; assertion of common beliefs, such as those of syndicalists, unionists, etc., or pursuit of a common purpose, such as production. One can agree with only one association at a time, but one can belong to several associations, whose objects may be very different, may even be contradictory. The influences of the moment may swing the mind from one interest to another and stimulate sympathetic response.

The characteristics of an association are not predetermined by its members. The various kinds of associations may yield different results according to the qualities of its members, the manner of interaction of its members, and their mode of combination. Professor E. A. Ross, who studied at length these combinations, concludes:¹

¹ E. A. Ross, *Foundations of Sociology*.

The traits of a collectivity, therefore, depend in part upon the manner of interaction of its members. Again the manner of constituting the group unit may give leverage to the wise or give it to the rash, favor the man of words or exalt the man of ideas, put the helm into the hand of the worthy or leave it to be grasped by the first comer. The character exhibited by an aggregate of men depends, therefore, in some degree on their mode of combination.

We shall examine briefly the general tendencies of the crowd, the sect, the corporation, and the public, these being forms of association which industrial populations can assume.

80. The Crowd.—The psychology of the mob, which presents the lowest mental group-organization, has been studied by G. Le Bon, from whom a free abstract of its typical traits follows.²

A number of people united together do not necessarily form a psychological group; but any number of people united by a common idea, sentiment, emotion, interest, or the like, even when they are not gathered at the same place, can form a psychological unity or, so to say, a collective personality. Collectivities then acquire temporarily certain new characteristics which can alter considerably their racial character. Such alterations, for instance, were noticeable in the enthusiastic crowds which, in November, 1918, cheered the news of victory, and are noticeable in the rioting which follows big strikes. When a crowd is psychologically organized, the personalities of the component individuals coalesce and their sentiments take a common direction.

The mob mind is generally stimulated first by some event, such as a crime, or an unexpected stroke of policy or by sensational news, seldom by the influence of one

²G. Le Bon, *La Psychologie des Foules*.

man upon others. When a man arouses the crowd, he does not need to be present, for, as Professor E. A. Ross says, "mental touch is not bound up with physical proximity." Mob mind is induced by the way persons in the crowd affect one another. When feeling is stirred up, it extends by contagion. After a time of interaction, suggestion from all sides awakens a collective emotion and any casual leader can complete the association and command action.

The individuals who comprise an organized crowd become possessed by a collective soul which makes them think, feel, and act in a way quite different from that to which they are accustomed as individuals. Even a collectivity of scholars can take all the characteristics of the mob, except in respect to matters related to their specialties. This is true because the most unlike people have like instincts, passions, and sentiments, which form their unconscious inheritance. When cultured men are merged in the crowd, they lose their acquired traits and are dominated by common traits.

In the mob, individuals are turned into automatons because they lose sense of responsibility and feel the omnipotence of the crowd. Then they have the impulsiveness, violence, ferocity, or, as the case may be, the enthusiasm and heroism of the primitive man. The mob has no will power; it is unable to control its reflexes. It is very versatile, credulous, irritable, or enthusiastic. Incapable of judgment and foresight, it cannot discriminate between the possible and the impossible. That is why strikers sometimes make the most absurd demands. The mob is always swayed by very simple, fanciful ideas, which seem to it undebatable, because it has no sense of proportion or power of criticism. It responds to excite-

ment, it has extremely mobile feelings; and when suggestion varies, it is apt to manifest successively the most conflicting sentiments. It is ever ready for action, but it is animated by a power which is wholly destructive. Although intolerant and fanatical, it bends itself with servility before strong authority; its leader is a god or nothing.

Reason has never influenced the masses because they are able to form only the roughest associations of ideas. They are prone to immediate generalization upon a particular instance; for example, if one employer once committed an offense, the mob believes that all employers all the time are guilty of such an offense. The crowd thinks only in very simple images, which terrify or seduce it. Every striking, clearcut, mental image, which is presented to its imagination, dominates and obsesses its mind and stimulates action. It does not distinguish between the real and the fancied, and it is especially attracted by the marvelous. A mob composed of work people can imagine union delegates dictating to the board of directors, but it is unable to formulate its demands.

These extreme characteristics apply particularly to miscellaneous crowds because among them irresponsibility is at a maximum, and culture is at a minimum. On the other hand, a homogeneous group, such as an industrial personnel, is apt to retain some feeling of responsibility and thus restrain its impulsiveness. If they come under the stimulus of some common interest, the homogeneous groups, composed of people of common creed, of similar situation and interests, or of the same profession or trade, are apt to get into the mob mind, but the members can retain their personalities, their reason, and will power as to questions in which they are trained.

G. Le Bon sets as a law: "The stronger the soul of the race, the less accentuated are the inferior characteristics of the crowds."

81. The Public.—Professor E. A. Ross says: ³

The public is the dispersed crowd, a body of heterogeneous persons, who, although separated, are so in touch with one another that they not only respond to a stimulus at almost the same moment, but are aware each of the other's response. The public suffers from the same vices and follies that afflict the crowd, but not to the same extent.

Although the multitudes are exceedingly conservative as to essential traditions, because they are not organized for adaptation to variation, crazes and fads have become important factors in public opinion. To quote Professor E. A. Ross again: ⁴

For a hundred years the effort has been to explode superstition, to diffuse knowledge, to spread light, to free man from the spell of the past and turn his gaze forward. The attempt has succeeded. The era of obscurantism has forever passed—with us the most damning phrase is "behind the times." As a result the multitude has now the prestige that once clothed the past. . . . Instead of aping their forefathers, people now ape the many. . . . Frequently a half education has supplied many ideas without developing the ability to choose among them . . . and the individual is left with nothing to do but to follow the drift. Formerly the people rejected the new in favor of wont and tradition; now they tend to "go in" for everything and atone for their former suspiciousness by a touching credulity.

In our time the public governs. Universal contact by means of the printed word has ushered in the rule of public opinion, constantly tested and interpreted by our

³ E. A. Ross, *op. cit.*

⁴ *Ibid.*

influential leaders. On technical matters, little rationality and consistency is to be expected from public opinion; nevertheless, critical intelligence on matters of vital public concern is increasing. In spite of fads and crazes, public opinion sometimes shows remarkable wisdom. Indeed, it is the only custodian of the immortal human interests and of the democratic idea. It maintains equilibrium among the component elements of society.

Men of weight and influence among labor realize clearly that they can gain their cause only through public sentiment by exercising statesmanship and by developing constructive ideas. As Professor J. H. Tufts declared: ⁵

The workingman must have the help of all. In other words, it is only through the power of the nation that he can receive just wages and proper protection to life and health. Of all classes in the community he has the strongest interest in the Union. The employer needs the state, the nation, and their law to protect his property; the workman needs the state, the nation, and their law to protect his very life and liberty.

The public has been regarded as the most heterogeneous association, since it includes the whole of society. But, when a question of interest to any group arises, the public splits into homogeneous groups which try to settle their differences through the opinion of others. In this, the public differs from the crowd; it is, so to say, a crowd of groups which tend toward equilibrium. In all questions which involve group interests as, for instance, the present issues of industry, the different groups separate from one another in order that their respective opinions can be expressed and their influence exercised. When a dispute arises between mine workers and mine owners,

⁵ J. H. Tufts, *Our Democracy*.

these parties become separated from the public, while all the rest of us, including employers and employees in other industries, form the public.

The public as a party to industry is no longer a mass of people but an aggregation of distinct groups, such as employers, employees, capitalists, merchants, bankers, artisans, professional men, officials, scientists, farmers, consumers, and so on. True public opinion about any given question is that which would result from the debate of representatives of all groups.

82. The Sect.—People possessed of the same inclinations naturally group together because they can understand each other; they have the same type of mind and have common grounds on which to meet and form a sect.

The interests and peculiarities of groups, as well as those of individuals, are apt unconsciously to create mental deformations. Prejudice which affects the groups distorts their moral conceptions to such an extent that the reconciliation of their interests constitutes one of the greatest problems of our time. Groups emphasize their claims against each other and against society in order to maintain or get privileges and influence; but the tension they create brings about an alarming state of unrest. Professor E. A. Ross declares:⁶

The sect composed of those who vibrate to the same chord and cleave to the same article of faith is, broadly speaking, a homogeneous group. It will therefore present the salient characteristics of its units and present them in an exaggerated form. . . . The eccentricity of opinion, the intensity of emotion, or the violence of action of a person mingling with those of another mental stripe is moderated by their indifference or ridicule. . . . If now those of a

⁶ E. A. Ross, *op. cit.*

certain bent become aware of one another, draw together in fellowship, formulate articles of faith, glorify distinctive ideals, perhaps even frame a manner of life and develop their own leaders, gatherings, and literature, a sect is formed. To the degree to which the sectaries segregate into peculiar people the old check ceases to operate. For each reveling in this new social environment renounces part or lot with the "unbelievers," the "Philistines," the "bourgeoisie," the "unillumined," the "world," as the rest of society is variously styled. The moderating influence is withdrawn. Finding countenance, each now rises to the full stature of his eccentricity. If it is a class pride, he will assert it with an impudence and unreasonableness he would never show by himself. If it is a dislike, it hardens into a murderous hatred. If it is a prejudice, it mounts to the pitch of fanaticism. What bizarre notions of bourgeoisie society circulate in the taverns where anarchists touch glasses. What warped ideas of right and wrong become hallowed in codes of tribal and professional ethics.

Sectarian deformation is akin to, and often united with, deformations caused by professionalism.⁷ Such deformations are those of officials, who think they are ruling, not serving; government employees, who consider public office more honorable than business; military men, who want to dominate civilians; well-to-do citizens, who shun physical labor as if it were infection; slum paupers, who look to charity as a natural source of income; agita-

⁷ "Through the continued performance of a certain function and the repetition of the various actions required by such a performance the individual adopts an estimation of that function which is both absolutely and relatively unwarranted. An exaggerated importance is attached to the systematic performance of an established sequence, and every infringement upon such an established order is not considered on the basis of its intrinsic bearing upon the result sought, but condemned as a violation of an established custom raised beyond the boundaries of admissible criticism. Professionalism is a slow process of unconscious deformation; to the outsider alone the result is painfully obvious." (Hubert Langerock, "Professionalism," *American Journal of Sociology*, July, 1915.)

tors, who, for the sake of the struggle, wish to perpetuate industrial troubles; syndicalists and bolshevists, who would run industry for their own profit; etc. The catalogue of such deformations is very large to-day and tends to increase.

The sect is prone to ignore the rest of society. Although it may sometimes disregard its own privileges or even its interests, it strives always for supremacy, because it is quite sure it qualifies for leadership. The ability of some sectarians may warrant such belief, but prejudice distorts their judgment and makes their propositions unacceptable. A reasonably homogeneous society, therefore, demands that such distorted habits of thought be neutralized through disapproval of public opinion.

The leader of a radical sect has been first a follower who has suffered from some injustice; then, having been illuminated by a vision of a better world, he has set his mind upon a new ideal, and disregarding the complexity of life, which does not exist for him, he becomes the propagandist of some simple idea which appears to him as a panacea. His idea dominates him so much that other things lose their significance and contrary opinions seem to him errors or superstitions.


83. The Corporation.—The impulsiveness of the mob and the bias of the sect, which characterize the lower forms of psychological organization, are essentially destructive either of good or evil. But when an association of men is organized for constructive coöperation, it is called corporation. So, a corporation must have a specific purpose, definite ideas, special abilities, and common sentiments. These elements must be so systematized that the association forms a living organism, in which each individual has a definite function to perform.

The organization of an industrial collectivity is primarily determined by the purpose of the corporation. It is the business of the organizer to set up a system of relation, differentiation, specialization, and coördination which realizes that purpose. The perfection of an industrial organization is tested by the accuracy of responsiveness of its individual members. The more ingrained in the subconsciousness of these individuals the constructive ideas of the organizer are, the more stable the association is. The law of G. Le Bon, transposed in terms of industrial engineering, is: "The stronger the acquired traits of the collective spirit, the less accentuated are the inferior characteristics of the collectivity."

Any collective spirit, the corporation like all others, is composed of all the mental traits which the individuals have in common. The spirit of the corporation is composed of the sentiments and acquired traits handed down by traditions and developed by training. Under normal conditions, acquired traits dominate, but the sentiments are always present and ready either to coöperate with, or to oppose, the management according to the stimulus which the manager applies. When there is no strong unity of spirit, the organization has no stability; it may be disintegrated at any time by some exciting event or by some fascinating suggestion of agitators. As soon as this takes place, the trade-acquired traits disappear; and class consciousness, sentiments, and traditions predominate and sway the group. A new spiritual collectivity is thus formed which, more or less, can assume the characteristics of mob mind and sectarian deformation. At the worst, a mob rises up, ready for any violence, regardless of the beneficial or evil consequences which may ensue, regardless as well of all sacrifices which agita-

tors exact from them. Such an eccentric association of workmen is a brainless body, blindly pursuing a chimera. The more irrational the outburst, the shorter its duration. The more logical the stimulus, the longer its influence. In extreme cases, trouble becomes chronic, and, as in syndicalist shops, the conservative and revolutionary tendencies struggle continually for supremacy. In these shops, the workers belong at the same time to the corporation and to the syndicalist organization. As members of the corporation they carry out the present order; as syndicalists they tend to destroy it. Between these two manifestations of the crowd, a momentary outburst of mob sentiment and a chronic struggle for sect supremacy, there is room for the whole scale of troubles with which we are familiar.

84. Applying Morality to Industry.—Crowd morality is peculiar. According to G. Le Bon, if we mean by morality constant respect for certain conventionalities and permanent repression of egoistic tendencies, it is evident that the crowd is too impulsive and mobile to be moral. But if we include in the term morality, a transient manifestation of certain qualities such as devotion, disinterestedness, self-denial, and justice, crowds are sometimes capable of acts of the highest morality, though they are unconscious of any purpose. Therefore, a collectivity cannot be expected to live up to a contract, unless it is so organized that the moral obligation reaches the conscience of individuals. The corporation can educate its members by connecting obligation with self-interest. The laborers in the corporation must first realize that, by honestly carrying out their contract, they build for themselves a reputation of manliness and fair play, gain permanent respect from others, and so create



a valuable asset for their future negotiations. Later, out of self-respect, they act conscientiously. A corporation can become moral only through the awakening of the conscience of the individuals. Whenever possible, the individuals of the corporation must individually accept an obligation.

The conclusion of this review is that a well organized industrial collectivity is a body, conscious of its unity and aware of its constructive ideals. It is receptive to reason and capable of loyalty and morality; but a group of disputants, associated in a crowd organization, is a nearly brainless body, inaccessible to reason, unconscious of duty, and perhaps fiercely destructive. Consequently, compromising adjustments with unfettered passions in the midst of which, step by step, leadership loses its influence, do not avail. The way out of trouble lies not in the settling of disputes but through constructive coöperation with a responsible body, in their prevention.

CHAPTER XIX

LIFE AS AN END IN ITSELF

85. Essential Cause of Unrest.—Are the economic claims of labor the real cause of unrest? With due regard to the American standard of living, the survey of the labor movement reveals that no amount of economic advantages and no relaxation of discipline as such, would decrease the discontent of labor and bring anything like industrial peace. We have, indeed, witnessed threatened and actual strikes of the most highly paid workers, and observed that the best conditions and kindest treatment afforded by state socialism failed to secure efficiency and contentment. There is some fundamental cause of discord which has yet been left uncorrected. It is proverbial that precapitalistic handicraftsmen, in spite of their frugality, enjoyed a state of happiness unknown nowadays. It has been recognized since antiquity that riches do not bring contentment. Consequently, although the problem is not to give up any material advance in our civilization, which would be a negative proposition, we must try to find out what conditions will result in prosperity with contentment. We must look deeper than the letter of the claims of labor and regard those claims as the symptoms of disease rather than as the disease itself.

86. The Individualistic Life.—The fundamental difference between the worker of the precapitalistic period and the worker of our industrial era is that the

former lived an individual life, while the latter belongs to a productive collectivity. The handicraftsman was the creator of his world. Through direct action and reaction between his inner self and the outer world, he had endless opportunities to adapt himself quickly to his environment. He might be poor; but free play of personality made him happy.

87. The Insignificance of Industrial Life.—The industrial worker of to-day, limited as he is by narrow specialization of machine work, cannot express his personality and develop his powers. This is a vital cause of unrest. In addition, he is a member of a spiritless industrial group, he is a citizen of a society uncorrelated with industry, he is the sport of chance, and he feels his own insignificance, his entire dependence, and the unreality of his world. In order to cure his disease, he has built a program of reform and has based it, not upon his real human aspirations, of which he is not clearly conscious, but on the example of those whom he thinks are happy and worth imitating. He does not know that his models also are enslaved. He has mistaken the ideals which they seem to pursue for the true end of life. So an industrial collectivity, organized for economic purposes only, fails to satisfy the human aspirations of its members and increases their unrest.

88. The Spirit of Coöperation.—Though the former individualism favored self-expression, it does not follow that we should regard isolated action as an ideal superior to coöperation. On the contrary, most men alone are not able to hold their own in the fierce struggle for existence. They are better able to realize their powers when they come in contact with sympathetic minds. Hence the individual tends to come out of his

isolation and to join the higher spiritual unity which the industrial collectivity is, or ought to be. Progress obtains through continually organizing the collectivity into an evermore perfect unity. Thus the better selves of the individual can become manifest. The members of a constructive collectivity feel that their united action has social purpose and that their individual action is a means for attaining this purpose; then happiness obtains as a result of coöperation for a better social order. Man will put forth any amount of effort to "make life significant," and the more his group enhances his personality, the stronger is the appeal of the group.

89. The Real Profit.—The results of industrial activity should be weighed from both personal and social points of view. The compensations to the employer and the employed are the measure and just reward for their actual services; but the real industrial profit is the surplus of material, intellectual, moral, and spiritual worth which industry brings to society and which dignifies the work of coöperators in a collectivity.

90. Life Is Progress.—From the point of view of human engineering, life cannot be considered as a biotic phenomenon, it must be considered as an end in itself; for human beings have existed for thousands of years and, without the formidable machinery of industry, would have continued to exist. In our industrial era, life must have meaning in accordance with the particular structure and functions of industrial society. Disregarding mere existence, we conclude that the word "life" connotes self-realization and progress. Progress may be defined as internal or external variation from one situation to another which, from an economic or spiritual point of view, is held to be more desirable, and

which, by means of society, benefits the individual. Progress is the conscious attainment of ideals and enjoyment of them.

The masses are not aware that progress has been made. Hence, whatever the value of progress may be, they do not appreciate it because for them it is unreal. They must understand progress as such in order to recognize its reality and feel its value. These things, appreciation of the reality and value of progress, are essential to make it an expression of happy life. Those who have come after our works and institutions have been established, do not consider them as symbols of progress. They regard these works as matters of the past, as an expression of the lives of their ancestors. So they are not stimulated to action. Likewise, they are not stimulated by works carried out in an administrative way; that is, without their concurrence. They do not value these works because the works are not a part of their mental world. But industrial and social institutions, built for the people and with their coöperation, are symbols of progress. If a trust company helps a man with credit to build his own house, according to a plan of his choice, he will appreciate it as real progress, for the house is a realization of his self. And such progress will stimulate his best industry in order to pay his debt.

91. Collective Life.—Our present industrial trouble comes from our attempt to maintain an individualistic life which ignores the collective purpose of industry. We try in vain to arouse interest in specialized and insignificant tasks which cannot constitute an end of life. The greatest change which characterizes our epoch of industrial coöperation is the change from the interests of the individual in himself to an interest in his collectivity.

Consequently, let work be an indisputable means for attaining social progress. Then work becomes joyous and gives life significance. The individual must feel that, by his specialized work, he contributes to the collective purpose as well as to his own prosperity. He does not feel that he loses his personality if he becomes a perfect part of the collectivity. Indeed, if he adheres to collective purposes and others recognize that he shares in the pursuit of their purposes, he meets the two conditions which will save his personality from being merged in an impersonal group or class.

92. Forms of Progress.—Life is action and development. Therefore, progress has a double meaning: individual or collective.

I. Personal Progress.—Coöperation in industry means that the work of the individual influences himself, his associates, the consumers, and society at large; while the individual, in return, is influenced not only by others in the same way, but also by the reaction to his own effort. Were individuals unrelated, such individual influence would be infinitesimal; but when individuals are united for teamwork into great organizations involving thousands, the individual influence is so multiplied that it becomes a considerable social force.

Progress means more perfect adaptation; that is, a greater capacity in the individual both to serve the collectivity and to enjoy the services of others.

II. Collective Progress.—Surplus, created above handicraft production and the needs of immediate consumption, is the *raison d'être* of industry; it measures the increased productive power of the individual. It causes material progress and, by supporting non-producers, also effects spiritual progress. Surplus is thus

the source or the raw material of progress, so to speak. When it is converted into social institutions which improve the traditional conditions of society, people attain their ideals and realize progress. The groups get their compensation for coöperation through improvement in social institutions. Industrial and social engineering will develop this proposition.

CHAPTER XX

LOYALTY

93. Nature of Loyalty.—Loyalty is a faithful relation to some person or some idea. In industry, it is a sentimental adherence to the policy of the concern or to the industrial system; it manifests itself by good will. W. D. Scott has admirably described loyalty. I cannot do better than to quote some abstracts of his interesting chapter: ¹

As with patriotism, business loyalty needs some such crisis to evoke its expression. . . . Study of any field, of any single house, or of any of the periods of depression which has afflicted and corrected our industrial progress, will convince one of the unfailing and genuine loyalty of men to able and considerate employers.

Coöperation of employees is the first purpose of organization. Without loyalty and teamwork the higher levels in output, quality, and service are impossible. . . . The employer who secures the loyalty of his men not only secures better service, but he enables his men to accomplish more with less effort and less exhaustion.

Such loyalty is always reciprocal; the feeling which workmen entertain for their employer is usually a reflection of his attitude toward them. . . . He must identify them with his business, and make them feel that they have a stake in its success and that the organization has an interest in the welfare of its men.

Personality is, beyond doubt, the primitive wellspring of loyalty. Most men are capable of devotion to a worthy

¹ W. D. Scott, *Increasing Human Efficiency in Business*.

leader; few are ever zealous for the sake of a cause, a principle, a party, or a firm. It is only when they become embodied in an individual, a concrete personality which stirs our human interest, that they become moving powers. Loyalty to the individuals constituting the firm may ultimately develop into house loyalty. To attempt to create the latter sentiment, however, except by first creating it for the men higher up is to go contrary to human nature—always an unwise expenditure of energy.

In developing loyalty, human sympathy is the greatest factor. Throughout the entire organization the sympathy and coöperation of the men above with the men below is essential for securing the highest degree of loyalty. No assumed or manufactured sympathy, however, will take the place of the genuine article.

Many men have employed thousands and secured it. The impression made upon a few and the loyalty created in them were sufficient to permeate and influence the entire body.

In a business house ideally organized to create loyalty, each employee not only feels that his rights are protected, but also feels a degree of responsibility for the success and for the good name of the house. He feels that his task or process is an essential part of the firm's activity and hence is important and worthy of his efforts.

Loyalty in business is in the main a reciprocal relationship. The way to begin it is for the chief to be loyal to his subordinates and to see to it that all officers are loyal to their inferiors. When loyalty from above has been secured, loyalty from the ranks may readily be developed. The personality of the worker must be respected by the employer. Giving a man a chance to develop himself, allowing him to express his individuality is the surest way of enlisting the interest and loyalty of a creative man. Give a man the least touch of authority and he seems to take an added moral stature.

So far as possible, responsibility for the success of the house should be assumed by all employees. In some way the workmen should feel that they are in partnership with

the executive. We easily develop loyalty for the cause for which we have taken responsibility or rendered service.

Loyalty is an attitude of mind which binds different persons in readiness for favorable response. In industry it is a confident relationship between employer and employee which gives cohesion to the organization and creates good-will.

94. Building Loyalty: I. Loyalty to the Concern.—Loyalty is the pillar of the industrial machinery, for it brings about the association of the interests of the employee with the prosperity of his concern. Reciprocity of interest obtains when both parties are benefited equally and are loyal to each other and when both can expect future profits from coöperation. Both parties cannot have confidence in each other except by means of daily practice in loyalty and justice toward each other. Mutual confidence cannot be established once for all, it requires continuous upkeep through continuous repetition of service. It results not from declaration, but from the suggestions of facts and continual competition in good will. Says Professor J. R. Commons:²

The new loyalty is the loyalty, not of penalties, but of goodwill. Thus education, interesting work, and loyalty go together. Loyalty is not gratitude for past favors, not a sense of obligation, but is expectation of reciprocity. If the future is not to be better than the past, then gratitude loses its hold. Education is not the teaching of gratitude or obligation for favors received, but is the unfolding possibilities in the job and the worker. It is this that makes the work interesting and converts loyalty into goodwill.

The main object of industrial representation is to gain the loyalty of employees by getting them to think about

²J. R. Commons, *Industrial Good-Will*.

and to see connection between efficient production and their own interest in health, safety, security, promotion, fair wages, and other better conditions. Interest is aroused and maintained by thinking out the means for greater accomplishment. The employees need to be educated in thinking correctly and provided with data for constructive thinking. Furthermore, they must understand why piece rates have to be cut sooner or later. Since manufacturers compete for lower prices, industrial progress results from a continual increase of efficiency which decreases cost. When some manufacturer has introduced a new and more efficient method, the piece rates paid under the old method, which was once profitable, must go down in his shop as well as in the shops of his competitors. Coöperation is necessary to improve efficiency and to maintain or increase the earnings of the workers, notwithstanding the decrease of piece rates. When the workers understand that piece rates can be guaranteed only for a certain period, their distrust may be converted into loyalty.

II. Loyalty to the Industrial System.—It is important that workers comprehend how they merely exchange specialized services and how they satisfy their own desires only in proportion to the measure in which they satisfy the wants of others. Elementary principles have to be imparted to them, from which their common sense can discover their own function in the mechanism of exchange. They must understand how, by making more and cheaper shoes in one place and more and cheaper hats in another, all of them will get more shoes and more hats for a day's work.

There is no escape from trouble until labor comprehends that the only source of more wealth, in which to

share, lies in more production at less cost. The right mental attitude toward that economic law is necessary to build loyalty to the industrial system. We have to shape it by an educational campaign, visualizing the functions of exchange and proving, by simple examples, how workers work for each other.

For several years, laudable efforts have been made by some concerns to teach workers the significance of their work in regard to the purposes of their concern. The increase of interest which has resulted shows the receptivity and responsiveness of the workers; but we have to go further and show the whole chain of connection between different industries. Does a man who never travels understand the utility of railroads and how he contributes to the wages of railroad employees? A vivid image of this and other connecting links between his own effort and that of his fellow producers is at the basis of loyalty to the industrial system. Such an educational movement is not limited to the shop, for the public also is interested. Recently an educational campaign of that sort has been started by the National Association of Manufacturers, as Stephen C. Mason says: ³

Through a carefully selected staff of public speakers, various forms of printed literature, stereopticon slides, and moving-picture films, we have spread broadcast the constructive gospel of industrial coöperation. The results achieved have been visible already in the more recent general awakening of political leaders, economists, leading employers and bankers, as well as among various craft and trade organizations to the need of preaching and practicing coöperative relations between the employer and the employee. The work described has been performed by the National

³ *Annals of the American Academy of Political and Social Sciences* for March, 1919.

Association of Manufacturers because there seemed to be a general misconception of industrial problems, needs and conditions which had greatly contributed toward industrial inefficiency and the creation of unrest and strife. It has been carried on free of any tinge of prejudice or controversial effort, simply as a constructive educational campaign to make possible the greater realization of that spirit of fair dealing enunciated in the first article of the Association's Declaration of Labor Principles.

Loyalty to the industrial system is not individual, it is the loyalty of the collectivity of labor which includes not only the workers but their families as well. This collective loyalty depends upon correct opinion of the industrial system and social order, but such an opinion cannot be formed by an educational campaign alone. The feeling of beneficial reciprocity among social groups is as necessary to stimulate the loyalty of the collectivity of labor toward the industrial system as it is to stimulate the loyalty of the individual toward his employer. We shall see in Part IV how this feeling results from co-operation and experience in reciprocal services among the group of labor, employers, capitalists, and other groups included in the public.

CHAPTER XXI

IDEALS

95. Definition of Ideals.—It is not submission that has created civilization, but the efforts of the best men working for a better life. The aptitude for discontent, which distinguishes the human species from others, is really the only source of progress. Since man feels pain when he is badly adjusted to conditions, he aspires to better things. By criticizing the present order, he is spurred to progress. By imagination, judgment, and memory of past experiences he constructs for himself an image of a more attractive possibility, that is, an ideal. Dean J. F. Johnson explains this construction as follows:¹

Using those past experiences which have given us the most pleasurable emotions, or have proved themselves of golden worth to our reason, the imagination, spurred sometimes by our pleasure-loving senses, sometimes by our conscience, sometimes by our desire for success and happiness, pictures those experiences to us in a combination which seems absolutely perfect. Thus it is we get the ideal. It is a human product and may be far from perfection, yet to every man his ideal has all the qualities of perfection.

Unconsciously the imagination of every man is forever at work building ideals that charm his soul and stir him to activity. The ideal of one man may seem base, vulgar, and commonplace to a man of higher type, whereas the ideals of

¹ J. F. Johnson, *Business and the Man*.

the latter may seem foolish, impracticable, worthless to a man of cheaper tastes.

No man can subdue his imagination and keep it from building ideals. A man's imagination keeps forever at its work and constructs for him ideals in accordance with which he must live. In the firmament of every man's soul there is a polar star—it is the ideal that dominates his life. . . .

It contains for us all the promise of Canaan to the Israelites and beckons to us with such compelling charm that we struggle toward it with all our energy and will. Sacrifice, fatigue, hunger, misfortune, criticism by our friends, the cajolery of temptations—all these things mean nothing to us and fail to stop us. Then we are men of purpose, of ambition.

The ideal is not a mere idea ; it is a more or less definite conception of the present order improved by a new idea. At any time we may have some intuition of another existence superior to the present. Such a conception of a better reality holds our attention and stimulates our desire for its realization ; yet it is but a stepping-stone on the endless road toward greater perfection. As soon as our ideal has become a reality, its attraction vanishes and another ideal succeeds it. This greater ideal arouses new aspirations ; opens a new field of interests, and stimulates a desire for realization. Then, having become a fact, it affords in turn a basis for the development of a new and superior ideal, and so on.² For instance, an ideal of man once was to fly. When the ideal of the airplane became a reality, the ideal lost interest and the airplane became an object of curiosity. Later, the ideal was to develop the airplane into an instrument for war, and now the ideal is to make it a means of transportation for commercial purposes.

² See Dr. Dromard, *Le Rêve et l'Action*.

An ideal is felt as practicable when it conforms to laws of nature and when it is worked out from actual experience. So, in order to imagine a more desirable future, we must start from the present. A Utopia is a plan for an ideal state but it disregards realities. It is mere fancy, though a logical structure of a desirable state; but it is impracticable because it opposes the laws of nature. Hence, true ideals must be built by means of a working knowledge of facts and principles. Everything which exists was first a mental conception, an ideal. Once the safety pin, the fountain pen, our clothing, the apartment house, the machine tool, the mail-order house, the post office, scientific management, and democratic government were ideals; now they are realities. An ideal is not necessarily a big scheme; it is any conception of amelioration applied even to the smallest aspect of everyday life. It may be better handwriting, a smokeless automobile, lower cost of living, better relations between employer and employed, as well as a vision of a perfect society. Ideals are the future in the making; they continually impel us to grow. At present, labor builds an ideal of emancipation. The manufacturer realizes the ideal of selling directly to the consumer. The merchant imagines ideals of new services. The banker develops foreign-trade methods. The nation plans a large fleet of merchantmen, and so on.

In conclusion, the ideals of an individual, of a concern, of a nation, are not only the conceptions of their purposes, they are also the molds which shape their lives. Hence, since ideals determine our activities and destiny, they are the most important things in the world, for they differentiate men, firms, and nations. And, as Alfred W. Martin said: "It does not matter what our practices have been.

If our ideal surpasses our present circumstances, there is hope for indefinite progress."

96. Placing Ideals.—The ideal has two sides: one in the finite manifestations of our daily life and the other in the infinite aspirations of humanity. The former is a constant tendency toward greater excellence; the latter, a more distant vision of a new order. Hence, ideals of production, of industrial relations, and of social institutions require different periods of time for realization. I can imagine how to do my work a little better to-morrow than I did it to-day. The time and place for the realization of such an ideal are definite and depend upon myself. But coöperation in management, for example, is an ideal placed at a more distant time, whereas full development of democracy is still farther ahead.

People who think that remote ideals can be immediately realized by passing laws or by making revolutions misplace in time their ideals. Those who are familiar with legislatures know that it is easier to pass laws than to enforce them, because the application of laws requires organization of thought. So ideals by themselves are not "forces," they become "forces" by being shared by the collectivity. An ideal is powerful, not when a few think that it ought to be, but only when the many are persuaded that it must be. The building of ideals in a collectivity is thus a process of propagation and development which takes time and requires guidance. It is necessary to take courage and cultivate patience when the attainment of our ideals is still a long way ahead of us. It took some twenty years to obtain woman suffrage; in all probability it will take as long to organize industry on a democratic basis and realize our present democratic ideal.

97. Functions of Ideals.—If people look backwards and have no ideals for the future, they live in a state of stagnation inconsistent with the development of industries. That is why China, which lives by tradition, has no industries. Progressive people, on the contrary, create continually new wants which industry must satisfy. Consequently, industrial development is bound up with ideals and their evolution. Discontent and aspiration for progress, therefore, are not things to be feared and antagonized indiscriminately. They may be destructive when their manifestation is left to chance; but when they engender constructive ideals, they become the fundamental cause of opportunity for business.

Plato said the ideal stands forth and attracts us. Other philosophers consider the ideal as a force pushing us from behind. The true ideal is a vision of a better order of things, which varies in time and space and which stands forth as a guiding star. The eternal human impulses which push man toward his goal are motives of action. Ideals alone are static; they picture new possibilities. Motives are dynamic; they stimulate action toward attainment of ideals. The union of ideals and motives gives the vital impulse which makes progress.


The ideal is not the end; the ultimate end is life. Therefore, a function of the ideal is to give direction and significance to life and to shape in finite form infinite aspirations. For example, the aspirations of labor for spiritual emancipation and social justice now seek to define an ideal order which will satisfy such aspirations.

Ideals coördinate efforts to a definite end and develop interest in work. Indeed, every task, however humble, has its problems, defined by its limitations, as to quality, quantity, and acceptability. When we define these limi-

tations, we state the problems and invite the mind of the worker to solve them and so attain greater results.

The larger function of the ideal is to unite individuals into a spiritual collectivity and compel them to coöperate for the realization of their common aspirations. Better working and living conditions are the common ideal which gives cohesion to trade-unions and labor parties. The ideal of democracy rules America.

98. Formation of Ideals.—A collective ideal develops gradually through a process of action and reaction between the individual who originates the essential idea and the collectivity which refashions it. The following example will illustrate the process of action and reaction. When a designing engineer conceives a new machine, his first step is to imagine a rough idea which embodies a principle; his second, is to make as the first expression of his idea a sketch without proportion; his third, to make computations which determine proportions; his fourth, to make a detailed drawing in order to define his new order of things. At every one of these steps, the actualization of the conception of the designer reacts upon his mind and defines more clearly his projects, though it closes the way to certain other solutions. The process continues after the phases of manufacturing, testing, and actual service of the machine have taken place. Each of these stages reveals imperfections which react upon the originating mind of the designer and enable him to imagine a more perfect design, that is, a new ideal. At every step of the process of designing, the creative action of the designer upon the form tends to identify the machine with his mind; while every reaction of the form upon his mind identifies his mind with the machine and suggests a new ideal.



: A collective ideal is formed in almost the same way. In machine designing, the suggestions may come from the form itself; whereas, in the process of human organization, the reaction comes from the mind of the people whose thoughts are about to be organized. When an individual has a revelation of what ought to be, he expresses his plan of a new order of things and tries to influence and rally his fellow men, but he antagonizes their cherished opinions and ingrained habits and thus provokes discussion, criticism, and opposition. This reaction shows the leader the defects in his original conception and induces in his mind new associations of ideas from which a more precise and acceptable conception is made and imparted to his prospective followers. So, by action and reaction, the ideal develops until it becomes a standard which governs the behavior of the collectivity. We have examples of such a phenomenon in the introduction, as well as in the working, of the committee system of management. Public ideals are formed in a more haphazard way because, before becoming influencing ideals, the original ideas are very much deformed by different persons.

An organization must have a leader on whom to focus its aspirations. He must have enough imagination to express explicitly what the collectivity feels vaguely. Although he first expresses the ideal, he is not arbitrary. In the highest form of organization, the will of the leader is a concrete expression of the latent desires of his followers. There is a perfect agreement in purposes. So, the more numerous the points of contact between leader and followers, the better their influence upon each other molds their minds into spiritual unity. Hence, as a principle, the power of the leader depends primarily



upon his ability to enter into the spirit of his organization; while his followers, in order to express his will, must dissociate themselves from their particular prepossessions and share his ideals. Thus, animated by common ideals, the organization becomes a constructive instrument of progress and harmony.

The organization of the spirit of a collectivity is not confined to the relations between leader and followers. It also spiritualizes the relations among followers, so that every one influences his fellows and brings out the spiritual possibilities that are latent in them. Such mutual development of life by life in daily intercourse is really what makes men fit and valuable for their organization.

The true reality is not merely what is seen but what is coming. Hence the future depends largely upon the correct formation of ideals, the initial, creative stage of everything.

The time is ripe for the introduction into business methods of high ideals; and this has been recognized by a large majority of the business men of the United States.—ELBERT H. GARY.

CHAPTER XXII

MOTIVES OF CONDUCT

99. Is Conduct Controllable?—It was formerly supposed that man was motivated mainly by external promptings; but it is now recognized that motives of action spring from within.

Ordway Tead has recently shown the rôle of instincts as motives of human behavior and concludes by saying: ¹

Our facts, therefore, appear to have brought us to several fairly definite conclusions:

First, that the cause of the conduct of individuals and groups are knowable. Although there are subtleties and complexities, we can come to approximate knowledge of the origins of the characteristic reactions of people to given types of situations. We can begin to answer with some beginnings of accuracy the question which is too often put: "Why do they act that way?"

Second, that human nature and its elements are subject to law—a fact from which we may properly derive a modicum of hope and encouragement as to the future of the race, because this fact carries with it the conclusion:

Third, that conduct, if subject to law, can be controlled if we can control its causes. Human nature will respond in varying ways to varying stimuli, and if we supply a stimulus which is calculated to evoke only the more socially beneficent impulses of human beings (assuming that we know which they are), we can rely upon the desired reactions taking place.

¹Ordway Tead, *Instinct in Industry*.

Fifth, that since adequate expression of individual and group impulses requires a considerable measure of self-direction, it seems not unlikely that the demand for an extension of the democratic method is in fundamental harmony with the facts of human psychology.

100. Sources of Motives.—Pleasure and pain are the expression of satisfaction or trouble of the organism or of the mind. By them nature commands living beings to do such acts as maintain and improve existence. They are two great unshakable certitudes which are fundamental in the philosophy of daily life. They are stimuli of our activities. Indeed, human beings have always striven for happiness which, in the last analysis, consists in pursuing pleasure and avoiding pain. Men have always agreed upon that conception; their differences of opinion bear only upon their conception of happiness and the ways of attaining it. Pleasure is apprehended only by comparison with pain. Change, therefore, is the condition which causes a sensation of pleasure or pain. Both pleasure and pain are characterized by discontinuity: continued pleasure ceases to be pleasurable, and continued pain abates. The most lasting pleasure is hope of happiness because hope contains every possibility of pleasure.

Effort and pain are often confused because the result of effort is often the pain of fatigue. Effort spent in exercising one's powers and capabilities or in pursuing some ideal may cause fatigue. Nevertheless, such effort is joyful because it means an expansion of life which spells happiness. On the other hand, circumstances that constrain the individual produce restriction of life and consequently cause pain, but not necessarily fatigue. For example, during the day, a workingman may reduce

his output to the very minimum because he suffers from being compelled to do his work under objectionable conditions. At night, the same man may joyfully devote his best efforts toward the development of a coöperative store the success of which constitutes his ideal. Effort, therefore, should not be confused with pain for effort may be joyful.

Pleasure and pain merely indicate accord or discord between man and his world. By reaction, they stimulate desire through the following process: A sensation aroused by pain or prospective pleasure awakens emotion and the emotion, in turn, suggests a desire. This desire remains passive until we become conscious of our power to satisfy it; then, it becomes active, that is, a motive of action. Let us illustrate this by an elementary case. When I have a sensation of cold, such a sensation stimulates an emotion of discomfort which suggests a desire for warmth. If I cannot control the situation, this desire remains passive; but if I can get warmth, my desire becomes active and I take the necessary steps to satisfy it.

Desire establishes the scale of values; for value is not intrinsic, but is fixed by desire alone. Value is thus proportional to intensity of desire and to power of will invoked by desire. Therefore, desire is the principal factor of will and hence of acts. Among primitive men, behavior is determined by stimuli and impulsive reaction to stimuli; whereas among civilized people, it is determined by conceptions of morality, the necessity of foreseeing consequences, and of controlling conduct accordingly. The consciousness of self-controlling powers formerly suggested the belief that conduct was determined by an act of free will, which weighed alternatives and

reached decisions through deliberation. But the modern conception is that man rarely reasons at all. G. Le Bon recently explained the multiple nature of man and the foregoing facts as follows:²

The phenomena manifested by living beings may be classified in three categories:

1. Vital phenomena, as nutrition, respiration, etc.;
2. Affective phenomena, as sentiments, passions, etc.;
3. Intellectual phenomena, as reflection, reasoning, etc.

The organic life, the affective life, and the intellectual life constitute three very distinct spheres of activity; but, although separated, and often in conflict, they influence each other constantly. . . .

Modern science has proved that subconscious phenomena play in mental life a part often more important than intellectual phenomena. The former are the substratum of the latter. Intellectual life may be compared with islets which represent the crest only of invisible submarine mountains. The immense mountains represent subconsciousness.

Furthermore, G. Le Bon shows that different logics govern the various spheres of activities mentioned in the foregoing quotation. In this study, logic means not only the rational process of reasoning, but the peculiar process of reaching any conclusions from a set of circumstances, however irrational the process may be. The supposed existence of different logics is demonstrated by their results only. Since action is the sole criterion of a logic, he considers as different the logics conducive to different results. There may be good and bad acts, but there can be no illogical acts. All acts are conclusions of different logics, and conduct must be judged according to the standards of the logic to which it belongs. G. Le Bon establishes five forms of logic: (1) biotic logic, which

²G. Le Bon, *Les Opinions et les Croyances*.

governs organic life; (2) sentimental logic, which governs affective or emotional life; (3) mystical logic, which forms opinions and beliefs; (4) rational logic, which governs exact reasoning; and (5) collective logic, which governs associated people.

In the same mind, all these forms of logic can be superimposed upon one another, associate with one another, or antagonize one another. Any one of them can occasionally predominate, but never eliminate the influence of the others. For example, sentimental logic led an Athenian general, jealous of his rival, to declare war upon him; mystical logic made him consult oracles as to the propitious date to start such operations; and rational logic dictated his tactics. All the time biotic logic governed his organic life. Thus, our acts vary according to the logic of which they are conclusions.

These logics have been adapted to our subject of human engineering and briefly developed in the following chapters.

101. Classification of Desires.—Man's desires are the primary motives of his activity. They are the dynamic forces which, in order to satisfy his wants, motivate his behavior. They rise in consciousness either instinctively or from external stimuli. I classify them according to the respective systems of logic in which they express themselves:

I. BIOTIC OR ORGANIC DESIRES

1. *Appetitive*.—Hunger, thirst, and sex appetite.
2. *Pleasurable*.—Love of health, love of ease, love of sensuous pleasures, fear or aversion to pain.
3. *Recreative*.—Play impulse, love of self-expression, cheerfulness, and gayety.

II. AFFECTIVE OR SENTIMENTAL DESIRES

4. *Desires for Self-Assertion*.—Joy in the exercise of powers, combativity, acquisitiveness, pride, self-respect, love of liberty, love of glory, love of the game, ambition, envy, and shame.
5. *Desires that Aim at Others*.—Sympathy, sociability, patriotism, parental love, affection, submissiveness, hate, spite, jealousy, anger, and revenge.
6. *Ethical*.—Love of fair play, love of justice, and struggle after right.
7. *Esthetic*.—Enjoyment of the beautiful.

III. MYSTICAL DESIRES

8. *Desires for Faith Assertion*.—Craving for certitudes, yearning for imparting opinions and propagating beliefs and creeds, illusion building and realization of illusions and ideals.

IV. RATIONAL DESIRES

9. *Intellectual*.—Love of knowing, of learning, of imparting, and joy of reasoning.
10. *Instinctive*.—Curiosity, constructiveness, and workmanship.

Life is an exercise of functions; therefore, man naturally craves the exercise of his organism, faculties, and powers. Joy is the consequence of a successful exercise of functions.

102. *Outside Influences*.—Outside forces can influence conduct by stimulating, directing, or repressing certain desires; but in themselves they are not primarily motives. These forces have been used in a haphazard way to control men. They are:

Constraint, as by subjugation, closed opportunities, frustration, repression.

Restraint, as by morality, tradition, law, discipline.

Direction, as by suggestion, imitation, emulation, command, prestige.

Appeal, as by sympathy, interest, responsibility.

Since these factors are not primarily motives, their rôle is to stimulate certain desires. They operate in the following ways:

1. *Constraint*.—Says Professor Le Dantec:³

Life has horror of constraint, but it adapts itself to it by acquiring new characteristics. Every constraint is followed by a state of consciousness which expresses the corresponding objective variation.

When the constraining circumstances are not sure to be permanent, people do not adapt themselves to the circumstances, but try to change the circumstances. In such a case, the action stimulated by coercion may be either destructive of the constraining circumstances or state of society, or constructive of a new order which is held to afford a freer expression of life. The former course is taken by revolutionists; the latter is followed by evolutionists or meliorists.

Constraint includes every means of coercion which compels men to live or to act contrary to their judgment. It determines behavior by giving opportunity only to the lowest organic functions. But, by reaction, the repression of spiritual aspirations awakens pugnacity, a desire to fight the coercive force. This desire manifests itself either explosively, as in a fit of anger, a strike, or a revolution, or by sustained effort to gain freedom, as in the coöperative, trade-union, socialistic, or other reformatory movements.

³ Le Dantec, *La Science de la Vie*.

The most irritating form of coercion and probably the chief incentive of destructive action is social constraint. It culminated, for example, in company-owned towns where people had to conform to an alien standard of living. The mildest form of constraint is discipline without consent. These extreme and the many intermediary forms of constraint constitute the subject matter of the history of labor troubles. Hence constraint is the chief destroyer of coöperation since it invariably incites, by reaction, a course of conduct quite at variance with that which was intended.

2. *Restraint*.—The necessity of repressing certain sentimental desires injurious to society is a fundamental principle of collective life. Consequently, certain rules, incorporated in education, ethics, laws, and policies, control conduct by restraint. The restriction in these cases, although painful in the beginning, is accompanied by a feeling of oughtness. When restraining ideas have been assimilated by subconsciousness, liberty obtains in self-government. Meanwhile, discipline is supported by force, although force should remain the last recourse of leaders. A personnel, not yet spiritually organized, must be convinced that, in extreme cases of insubordination, its chief will not hesitate to apply a strong hand; for a suspicion of weakness would deprive him of authority. Authority is not a mere expression of power, it is a complex sentiment of admiration, affection, fear, submissiveness, and faith.

3. *Direction*.—The means of directing behavior above mentioned stimulate sentimental desires toward a given course of action and leave the man feeling that he acts from free will. Used to stimulate latent desires, these means of direction urge voluntary action.

4. *Appeals*.—Appeals are merely stimuli of desires awaiting opportunity for expression. They are discussed elsewhere, in our study of the stimulation of sentiments for action,⁴ and need not be considered here.

⁴See Chapter XXIX.

CHAPTER XXIII

INFLUENCE OF OUR ANIMAL NATURE ON CONDUCT

103. Biotic Logic.—Vital phenomena, apparently very simple, are always extremely complicated. Their manifestations depend upon a system of laws analogous to that called logic which governs intellectual phenomena. Hence the term "biotic logic" designates the process of organic life. Biotic logic governs all phenomena of organic life, such as the creation and maintenance of beings. Its mechanism is unknown, but its results are evident. It tends always to supply the individual with means necessary for his subsistence, reproduction, and adaptation to environment. Organic life is directed for better adaptation by unknown forces. These forces act as though they were possessed by a reason of their own, superior to ours. The vital process has no mechanical rigidity, for its logic constantly changes the reaction of the organism according to actual necessities.

The cells of organism perform not only the most complicated operations our laboratories can, but also many more difficult which laboratories cannot repeat. By unknown means, the cells construct those varied and complicated organic products which nourish the body and know how to dissociate the stabler product like table salt, how to extract nitrogen from ammoniacal salts and phosphorus from phosphates. It is through biotic logic that the insect knows how to protect its eggs

and provide for its young, that bees organize and run their community, and that the bird learns how to fly.

Biotic logic is not limited to the function of organic life only; it influences behavior also. Since sentiments are expressions of life, it is natural that biotic logic influences sentiment and consequently conduct. Indeed, discomfort or illness turns gayety into sorrow, kindness into wickedness, good will into indifference; whereas comfort and health promote optimistic and energetic dispositions. Beneath the visible surface of things, there is a whole world of unseen forces, inaccessible to reason, but powerful enough to influence our conduct.

104. Pleasure as a Dynamic Factor.—Pleasure in itself is a stimulant to activity because the effect of pleasure on vital functions of the organism is agreeable. The rôle of pleasure as a dynamic factor has been pointed out by Professor W. D. Scott as follows:¹

Pleasure secured in and from work is the best preventive and balm for tired muscles and jaded brains. Dislike or discomfort, on the other hand, adds to toil by sapping the strength of the worker.

Here pleasure enters. Its effects on the expenditure of energy is to make muscle and brain cells more available for consumption, and particularly to hasten the process of restoration or recuperation. The hastening may be so great that recuperation keeps pace with the consumption consequent on efficient labor, with the result that there is little or no exhaustion. This is in physiological terms the reason why a person can do more when he "enjoys" his work or play, and can continue his efforts for a longer period without fatigue.

And further, after showing how pleasure becomes a mo-

¹ W. D. Scott, *Increasing Human Efficiency in Business*.

tive of activity through organic influence, he shows the influence of pleasure on sentiments :

A man is said to be suggestible when he comes to conclusions or acts without due deliberation. Suggestion, then, is nothing but the mental condition which causes us to believe and respond without the normal amount of weighing of evidence. While in a suggestive condition we are credulous, responsive, and impulsive. Such a mental condition is favored and induced by pleasure. Discomfort or dissatisfaction with the conditions or surroundings prompts the opposing attitude ; we become suspicious and slow to act or believe. The pleased and satisfied employee is open to the suggestions of foreman and manager and responds with an enthusiasm impossible of generation in one dissatisfied from any cause. Pleasure and a particular attitude of body are indissolubly united.

Formerly man lived in what may be called a "pain economy." He worked to escape pain but now he works, not alone to escape poverty and hunger, but to secure pleasure and joy.

CHAPTER XXIV

INFLUENCE OF SENTIMENT ON CONDUCT

105. Characteristics of Sentiment.—The logic of sentiment is the interaction of stimuli and sentiments which terminates with a feeling conducive to action. Sentimental desires or sentiments are most important in motivating our conduct because they are dynamic. Sentimental logic obeys certain laws; but, since it operates without our being conscious of the process, we know only its conclusions, not the process itself. The logic of sentiments was formed at first by the tendencies of species to continue habits which experience had proved were vital to existence. These tendencies, necessary to self-preservation, became a race inheritance before there was intelligence. Indeed, all beings had feeling before reason. Directed by feelings alone, animals live their destinies. A mere hen knows perfectly without reasoning how to raise and protect her chicks. The sentiments of a race are always the same; they only seem to change when the object of interest is changed. For example, the same love of liberty is at work among revolutionists who try to overthrow an emperor, socialists who propagate their doctrine, democrats who fight autocracy, feminists who seek emancipation of women, and those who teach how to free humanity from superstition, disease, fear, etc. The sentiment is the same, the kind of liberty only is different. Because the object of sentiment changes, the

manifestations of sentiments change, just as organisms adapt themselves to their surroundings.

Character is an aggregate of sentiments which determines the mode of behavior of individuals and races. Character, not intelligence, differentiates individuals as well as nations. Because different traits predominate in different individuals, the logic of sentiment varies with every individual and with every group. Race traits, such as self-reliance, sporting disposition, confidence in effort, contempt for abstract speculations, are characteristics of the American people. These traits influence our sentimental logic and consequently our national behavior. Self-reliance alone makes the great difference which distinguishes social life in America from social life in other countries where the government is credited with the power to solve all social problems.

Since we are unconscious of how the logic of sentiment reaches conclusions, we are unaware of our sentiments. Our acts are the test of our actual sentiments. Our true self is expressed by conduct, not by words. I know a soldier who before the war declared that, if war broke out, he would certainly desert rather than expose his life at the front, because he did not see any reason to fight. A very few months later, as the fearful event took place, he did not desert, but faithfully complied with his duty. Moreover, he was wounded twice; and each time, after recovery, he asked to be allowed to go back again. By his bravery, he won the *Croix de Guerre*. Like most of us, he did not know himself; his sentiments led him into a course of action which his intellect disapproved. Men do not suspect what they can do until they are rightly motivated.


The subconscious self is not entirely inherited. It is

also the store of our past experience. It is the source of intuition, by means of which we reach an immediate conclusion without conscious reasoning. When the impressions of experience have been sufficiently repeated or are striking, such conclusions may have practical value. This is the logic of the man of action who dislikes reasoning.

The logic of sentiment or sentimental logic is still a new field of psychology, but it has taken such an important place that it is likely to become one of the main sources of progress in human engineering.

106. Independence of Feeling and Reason.—Sentimental logic keeps no account of reasons, contradictions, or principles. The rules which govern the logic of sentiment are quite distinct from those which govern intellectual reasoning. It follows that intelligence cannot understand, interpret, or judge the acts dictated by sentiments. A great mistake of the old psychology was to try to explain by reason the phenomena of sentimental logic. This was impossible. Reason and sentiment are irreducible to common terms. As Pascal said, "the heart has reasons which reason does not know." Since sentimental logic varies according to the character of the individual, its rules are not universal like those of rational logic.

A characteristic of sentimental logic is to bring about a decision without deliberation or without exhaustive consideration. Nevertheless, after a course of action has been started or accomplished in such a manner, reasons are invariably put forth to justify and sustain the conduct. In fact, in spite of the ever prevailing sway of sentiment, reason has never been invoked so much as it is to-day to justify the contradictions of our conduct.



The contradiction between two modes of behavior caused by a given feeling is exemplified by the following fact that often occurs in industrial life. A workingman, who bitterly complains of autocratic management which hurts his pride, will adopt the same autocratic policy as soon as he has been made a boss. He will give many reasons to justify his change of attitude, but the real cause is that the exercise of authority stimulates his sentiment of pride. The contradiction between feeling and reason is illustrated by the fact that a "bourgeois" becomes a socialist. His sentiment of justice has beclouded his understanding and concealed the irrationality of his conduct. The boss who, because it hurts his pride, refuses to accept from his subordinate a good suggestion supported by reason, is an everyday example of the conflict between reason and sentiment.

107. Function of Sentiment.—Does sentiment play a part in industry? It has been often repeated that sentiment has no place in business. Sentiment has little place indeed in the technique of business, since the object of technique is to master laws and facts. Neither has it any place in exchange of established values, which is governed by the principle of equivalency. Nevertheless, production and consumption are rooted in sentiment. The needs of man for mere subsistence are prompted by his biotic desires; but his wants, which constitute by far the largest part of consumption, are sheer sentimental desires or biotic desires stimulated by the influence of sentiment. As to the producer, he labors not only to supply his wants but also to satisfy his purely sentimental desires for self-expression. Moreover, his station in life, determined by his relations to his fellow men, gets its value from their sentiment toward him.

The motives of our conduct are elaborated by sentimental logic. Sentiment, therefore, is the main determinant of behavior. By stimulating sentiment, the conduct of men may be controlled. Give a man responsibility, his constructiveness awakens; his interest and attitude toward duty change suddenly. Give him credit for his contribution, his pride and courage are stimulated. Secure him the full value of his service, his instinct of possession and his parental love are appealed to, and his good will is secured for coöperation. On the other hand, belittle a man, compel him to move in a narrow way, ignore his effort, scorn his occupation, despise his social situation, deprive him of what he thinks belongs to him, and he will become a passive agent moved only by hunger until he later becomes a revolutionist. His apathy will allow him to render just the minimum service which will keep him at the job. The democratic policy, which consists in bringing into action the best potentialities in the individual, is essentially to stimulate the right sentiments, as, for example, the joy of exercising power.

We must not assume, however, that full satisfaction of any desire is necessary or desirable. On the contrary, the complexity of our social life demands constant repression of evil and direction of good instincts. That is why sentiment cannot be the only factor of behavior. It has been a safe guide in the life of animal, but it has ceased to be reliable for civilized man.

The sentimental atmosphere in which an individual lives is of greatest moment in shaping his personality. Constructive and destructive sentiments struggle for supremacy. Those that are exercised and stimulated most win. The only way to overcome a destructive sen-

timent is to create a stronger emotion by means of constructive sentiment. Therefore, to get a favorable attitude among a personnel, the chances for the suggestion of pessimistic ideas should be minimized; while the whole environment should suggest wholesome joy and a life worth living. Sentiment should be cultivated so as to establish an atmosphere of contentment and sympathy in order to create an adequate agency to dispel antagonism and hatred. Sympathy overcomes antipathy as sunshine dispels darkness because sympathy and antipathy are expressions of the same logic. No argument can destroy bad feeling, any more than sound waves can produce light; sentiment alone avails.

108. Field of Sentiment.—The love of the game is a sentimental, enthusiastic disposition which induces a man to look at his accomplishment as an end in itself. His business becomes sport and develops passion for attainment. Professor W. D. Scott says:¹

For some men, buying and selling is as great a delight as felling a deer. For others the manufacture of goods is as great a joy as landing a trout. For such a man enthusiasm for his work is unfailing and industry unremittent. He is suited to his task as is the cub to the fight, the puppy to the chase, or the hunter to the killing of the game. His labor always appeals to him as the thing of supremest moment. His interest in it is such that it never fails to inspire others by contagion. For such a man laziness or indifference in business seems anomalous, while industry and enthusiasm are as natural as the air he breathes and as inexhaustible as the air itself. . . . Potential geniuses exist in large numbers but fail of discovery because they are not developed. Instincts manifest themselves only in the presence of certain stimulating conditions. They are developed by exercise and stimulated further by the success attending upon their exer-

¹ W. D. Scott, *Increasing Human Efficiency in Business*.

cise. . . . The conditions essential for developing the love of the game in business may be summarized under three heads:

First, a man will develop a love of the game in any business in which he is led to assume a responsibility, to take personal initiative, to feel that he is creating something worth while, and that he is expressing himself in his work. The second condition is social prestige. . . . The executive seeking to stimulate love of the game among his workmen should in some way see that social approval attaches itself to the work as such. . . . The workman must be given an interest in the work as well as in the wage. The third condition . . . is that the work itself must appeal to the individual as something important and useful. The dignity of labor demands that the workman should respect the work of his hands. . . . The boy who goes direct into work from the public school is not likely to coördinate his task with the general activity of the establishment, and he is not likely to see how he is in any way contributing to the welfare of humanity by his work. He needs to be shown how each line of industry and profession serves a great function, has an interesting history, and is vitally connected with many of the most important human interests. He should learn to see how the different cogs are essential and worthy factors in the total process.

Perhaps a few men only can develop the love of the game to the highest enthusiastic pitch; nevertheless, these few are very desirable for the inspiration which, by contagion, they spread all around them. An occasional appeal to the love of the game is made by many important houses which use competition as part of their regular equipment for handling and energizing men. Professor W. D. Scott states: "The most industrious and ambitious men are stimulated by competition; with the less industrious such a stimulation is often wonder-working in its effects."

Sentiment is to be resorted to in order to create an atmosphere of responsiveness and to stimulate action whenever a feeling of value or a hope for enjoyment may be induced. So, the field of sentiment in industry may be outlined as follows:

1. An appeal to sentiment can supplement conviction and prompt men to do what they already know they ought to do. They often do not act because there is some negative feeling, such as, for example, distrust, or because there is no desire attached to the act. Desire is not necessarily selfish, but every act must be motivated by some desire, either selfish or altruistic.

2. Sentiment is the first recourse to secure an immediate response, particularly when there is no time for deliberation, because sentiment prompts action without delay.

3. The language of sentiment is particularly well understood by collectivities.

4. Sentiment is the ground in which vocational aspirations and ambitions are rooted. Indeed, no one would become or would like to be anything, unless some feeling of value is attached to his position. There is no hope for one who looks on his occupation as a curse or a makeshift. The school, institutions, and society should suggest that it is a privilege and honor to be a working-man in the new order of industry.

5. A feeling of mutual confidence is essential to loyalty in every form of efficient organization.

6. Readiness to coöperate is founded upon a community of means to realize one's desires, even if these desires are particular. If, then, a common sentiment approves a common means to realize a collective desire, coöperation results as a matter of course. Coöperation

is based upon a sentimental adherence to collective aims and means.

7. The love of the game, the love of peace and order, and the love of one's place are sheer sentiments, since they are expressions of love. They appear as a logical response to the right stimuli. A cause of labor turnover is certainly the absence of anything to love in any place; everywhere, everything is alien and indifferent and fails to retain the men.

8. Discipline is an expression of the instinct of submissiveness. It hurts, to a degree, the sentiments of pride and love of liberty; therefore it should be stimulated by a feeling of increased power obtained through standardized rule.

9. The success of the whole welfare movement with its different aims and purposes depends entirely upon its ability to meet the desires of labor. In no other field is coöperation more necessary to attain satisfactory results. A betterment work may be logically desirable; but if it is not wanted, its installation may be harmful because it would arouse suspicion.

10. Better citizenship depends essentially upon the love of one's country and its institutions. It is, therefore, an expression of sheer sentiment, the power of which varies according to the sentimental adherence of the person to the industrial and political institutions of his country.

These few cases suffice to show the vastness and importance of the field of sentiment in business, our study of which is far from being exhaustive. Notwithstanding the constant interaction between sentiments and ideas, the fact is that all our activities are governed primarily by an emotional process, that is, by sentimental logic, a logic which reason is unable to understand.

CHAPTER XXV

INFLUENCE OF BELIEFS ON CONDUCT

109. Mystical Nature.—Man has always been anxious to know the meaning of life and has been ready to believe in the assistance of unseen powers. His hopeful craving for certitudes has developed, according to a particular logic, all those forms of religion, politics, and doctrine which bring visions of happiness. This logic, called mystical logic, governs the mystical nature of man. Our mystical nature leads us to believe that supernatural or powerful virtues belong to a being, an object, or a doctrine. It manifests itself by beliefs, more or less vague or definite, which change to suit the necessities and wishes of the believers. A belief is supported by faith only. The faith of the mystic is limitless and unaffected by reason or criticism. The field of mysticism decreases and specializes as science advances. At present, it specializes in reformatory movements. Nevertheless, since the regions where science has penetrated are very restricted, whereas our aspirations know of no limitations, mysticism will still dominate humanity for a long time to come.

The "will to believe" is inherent in human nature; it is as ineradicable as hunger and love and often is as imperative. Belief seems to be spiritual nutriment for the mind, as food is for the body. Civilized man cannot go without belief any more than primitive man can. Belief

is a universal disposition as well as a universal need. No rational element enters into the formation of beliefs; therefore, mystical logic shows contradictions just as sentimental logic does; but, unlike the latter, it is conscious and admits of deliberation. The believer does not imagine he accepts any proposition without evidence, for he argues constantly. It is in the nature of the evidence that satisfies him that the depth of his credulity appears.

Knowledge develops judgment, but belief controls behavior. Belief possesses the marvelous faculty of creating illusions which dominate imagination. Man will sacrifice his life to defend them. We have seen examples of such a disposition in the study of coöperatives, socialism, syndicalism, and sect. A strong belief inspires unshakable certitude. The socialist and anarchist are animated solely by a mystical belief in their respective doctrines. Such certitudes have commanded most historical events, as, for example, the belief in the democratic idea which forced America to participate in the last war. One of the most constant effects of certitudes derived from beliefs is the creation of certain moral principles, more or less lasting, but very powerful in developing a new self, and, as a consequence, new conduct corresponding to the new self. Belief in the power of unions, for example, has created a moral obligation to join. Alone the belief in democracy can open the door to the committee system of management.

A characteristic of belief is intolerance. Mystical certitudes are always accompanied by the desire to impose them. A man is unwilling to get along with another who does not share his beliefs. A radical and a conservative differ only in their beliefs; but these beliefs are so con-

flicting that the destruction of one of the parties often seems to them the only solution of their difference. The men who have destroyed or built civilizations were always possessed by mystical certitudes.

Mystical logic often dictates a course of conduct quite opposed to our most evident interests. Belief in the exclusive excellence of any economic theory leads men to do things contrary to their own interests. Any belief in a simple idea which disregards many of the forces implied in industry is of that sort. From the psychological point of view, the commodity theory of labor, the efficiency theory of labor, profit sharing, belief in spontaneous self-government of the people, collectivism, syndicalism are all mystical beliefs. In every case, a one-sided idea is supposed in itself to have saving power.

110. Belief vs. Knowledge.—When science demonstrated that all phenomena are determined by rigid laws instead of by mysterious and capricious wills, our conceptions of the universe were revolutionized. In matters of belief, there is no verification possible. In matters of knowledge, the possibility of verification is the rule, and demonstration defeats objections. A rational truth is impersonal and the facts which sustain it have a common value for everybody. Beliefs, on the contrary, since they are founded upon sentimental and mystical conceptions, are personal.

No scientist, however, is free from belief. Indeed, in matters of phenomena still incompletely known, he is compelled to formulate an hypothesis; that is to say, a belief, which the authority of their author alone makes acceptable. In cases of well-studied phenomena, we are frequently forced to admit rational truths, as beliefs, because we cannot verify all truths. Our scientific educa-

tion is but an act of faith toward the views mainly supported by the scientific authorities. Knowledge is sometimes supported by experiments in order to show to the student the possibility of verifying the affirmations stated and to teach him that observation of facts is the only means of certainty. Granted the impossibility of verifying more than a small part of the whole of knowledge imparted to us, authority remains our principal guide; and so most scientific truths are assimilated like mystical beliefs. In other words, they are propagated by the influence of prestige, affirmation, suggestion, and contagion; that is to say, by an irrational process, quite apart from a rational ascertainment but much more powerful.

The mass opposes no resistance to the suggestions of its groups. It accepts the beliefs supported by its authorities or by the many and obeys these beliefs without question. For example, the theory of propagation of disease by microbes has not been verified by layman; nevertheless, he believes it and modifies his daily habits accordingly. So a belief is not necessarily an error; it differs from rational knowledge only in the manner in which it has been assimilated with the self.

III. Development of Beliefs.—No belief springs up overnight. It develops by growth and evolution, by mental contagion, and by repeated suggestion. When not continually entertained, a belief soon disappears. No belief is lasting unless supported by symbols, such as images, statues, edifices, institutions, emblems, codes, sacred books, or the like. A belief becomes really popular only when it has been symbolized by a concrete object or by a person who commands veneration.

A belief can persist as long as it sustains hope for

happiness. When the vanity of a belief has been recognized, a belief vanishes; but imperishable hope immediately suggests another belief through which hope will reassert itself. In the present period of transition, while waiting for a new universal creed which has power to subordinate particular interests to general interest, society is divided into a number of groups. These groups are governed by short-lived, sectarian beliefs which will cause them to fight one another until they can agree on a general creed. In most countries of Europe, two groups fight for a monarchy or a republic and they will fight until the belief in one of these régimes has been generally adopted. In America, belief in the republican form of government is general, while the fight goes on between autocracy and democracy in industry. The prestige of autocracy is vanishing; hope in democracy is rapidly growing. When a belief falls into discredit, a crisis ensues during which the symbols of this discredited belief are violently overthrown. All revolutions are caused by a change of belief. When the soldiers of Russia ceased to believe in autocracy by divine right, all the institutions established on the principle of autocracy were very soon destroyed.

Creator of laws, morals, customs, religions, politics, and of all the great movements of civilization, mystical logic has built all the illusions which have ever led mankind. Under its action, millions have experienced joy or sorrow, and in the hope of realizing their beliefs all have been sustained in constant endeavor. And man will go on ready to sacrifice everything to make his creed prevail.

Tracing the action of mysticism through all the manifestations of social life, we see its influence in arts, litera-

ture, politics, industry, and healing. But it is in politics that it is the most conspicuous. The extremists of all sects, including the laboring class and the reactionist employers, live in sheer mysticism.

112. Field of Mystical Beliefs.—Every organization, as well as every civilization, is governed by the interaction of the forces of natural, economic, political, and spiritual laws as well as by the forces of many diverging interests. The interpretation of these laws varies from time to time, and we have to change our organizations in agreement. Necessity and opportunity, which direct evolution, involve so many factors that we cannot expect to get a thorough knowledge of the whole of our world. Therefore, to make it possible to satisfy in some measure our inherent craving for explanation, we leave out of account some facts in order to get an approximation of actual truth. It is thus in regard to collective life. We want to know everything about what we are more or less directly connected with; but because of the complexity of the social phenomena and because of defective science, we must simplify most of our conceptions of the world and adopt them as mystical beliefs.

As to fundamental principles, we need to believe in democracy. We must believe in personal, industrial and social progress. We must believe that coöperation and service are the only source of prosperity and progress. Labor must believe in a leadership of superiority. It must believe that the necessities of carrying on business imply certain discipline and restrictions. It must believe that progress depends upon competition. It must believe that no society can subsist unless its laws are obeyed, for the real power of codes is not in armed force but in belief. As to minor principles, all industrial people need

correct opinions based on facts and principles about every subject related to their interests, as, for example:

1. The aims, resources, and limitations of industry.
2. The meaning of capital, profits, and wages.
3. The relation between income and service.
4. The scale of wages and hours of work.
5. Scientific management.
6. Mutual loyalty and justice.
7. Liberty.
8. Employment conditions.
9. Working conditions.
10. Industrial and social institutions.
11. Cost of living and distribution.
12. Relation of prosperity to personal efficiency.
13. Science.
14. Social progress.
15. Proper diet.
16. Proper recreation.
17. Education and opportunity.
18. Functions of government, etc.

A haphazard formation of contradictory opinions about these subjects necessarily constitutes an endless source of trouble. So long as the parties involved in the contest have no common valuation of the matters in dispute, there is no salvation; for no right exists unless it is supported by public opinion. The first step toward coöperation is to establish mutual understanding among social groups and to build a common opinion about things. Acceptance of the right of ownership and the legitimacy of profit cannot be forced upon unbelievers, but they can be reaffirmed in the conscience of man in proportion as they are purified from all elements of suspicion and recognized as the instrument for the maintenance and development of the

means of production and of industrial and social progress.

Like a new enterprise, a period of transition and progress implies necessarily some uncertainty, since we move toward an unprecedented order. The unknown compels risk. It is our faith in our ability to succeed which first supports every venture. Reason guides the development of our enterprises, but mystical belief sustains our faith and urges us to go ahead. Although ideals may be formed by reasoning, they become powerful only after being accepted as mystical beliefs. Most of them have no other ground than belief. By intuition we imagine new possibilities which, until they can be demonstrated by experience, are supported by faith alone.

CHAPTER XXVI

INFLUENCE OF REASON ON CONDUCT

113. Intellectual Nature.—Rational logic, commonly called logic, is the process of correct reasoning which produces a natural and inevitable conclusion from any set of circumstances or facts. Unlike biotic and sentimental logics, rational logic operates in consciousness. That is why, until recently, reason was considered the only source of determination of opinion and conduct. On the contrary, it negates more of our opinions than it forms.

By means of rational logic we learn how to reason, to deliberate, to demonstrate, and to make discoveries. The data of rational logic are exact, precise data taken from observations which can be duplicated at will and which always lead to the same results. In the domain of reason, ideas associate among themselves according to a set of definite rules that are universally admitted to be true by all men who have had training in reasoning.

In reasoning, attention isolates the object of interest from chaos; perception builds concrete mental representations; reflection combines and compares these representations in order to form judgments as to the relations of ideas. Different alternatives present themselves and necessitate a choice as to the acceptance or rejection of the truth of an idea, as to the selection of one among differ-

ent courses of action, or as to the determination whether to act or not.

For such a purpose, the will comes into play with its three phases: deliberation, decision, and execution. Deliberation weighs the evidence and considers the relative value of each alternative. Decision selects one among the different alternatives. Execution is a proof of the reality or sincerity of the decision. Deliberation is a process which takes time and causes hesitation; it is not suited to direct our routine activities. We could not get quick action in daily life without the spontaneous response of our subconscious self.

When a factor of value, that is a feeling of like or dislike, enters into deliberation, it impairs the fairness of our deliberation. Since we cannot for a moment lay aside our emotions, a sheer rational determination is rare except in purely technical matters. In the great majority of cases, our decisions are influenced by sentiment. Such decisions which involve both intellect and feelings are the only sincere ones, because they alone represent the true self.

Rational logic was the last to appear in the evolution of animal life. Beings acted before they were able to collect data and to reason. The behavior of beings was guided by other forms of logic. Therefore, comprehension and reason are not primary, determining factors of action. On the contrary, they often hinder action by showing too many of its dangers.

A constant characteristic of sentimental and mystical logic is that they start from a conclusion and sustain it by reasoning. They state a preference and then endeavor to demonstrate its truth; whereas rational logic associates all the data available in order to deduce a commanding conclusion, so sustained by facts that it imposes itself

without regard to our liking. This disregard of our preference is why reasoning necessitates will training. People are likely to take their cherished opinions for granted and so do not try to discover new truths; and all their subsequent reasoning only reënforces their beliefs.

Man's instinct for curiosity and eagerness to learn and to reason results in a mastery over nature called constructiveness. "Constructiveness is as genuine and irresistible an instinct in man as in the bee or the beaver," says William James; but in man, it has acquired an intellectual ingenuity which permits, as occasion demands, a constant variation of its manifestation.

114. Field of Rational Logic.—Rational logic is the chief means of gaining knowledge and of developing science and skill, the aim of which is to overcome the resistances of nature. Although no sharp line can delimit the domain of reason, reason is generally preferred in the following cases:

1. To impart occupational instruction; to explain principles and their consequences; and to show the relations of things, how to use instruments and materials, how to analyze matters, how to classify elements, how to combine them, and how to foresee the result of such combinations.

2. To induce a useful innovation in the habits of people.

3. To convince those people of professional or technical ability who, in the light of their experience, can understand a proposition offered to them in a rational way.

4. To secure interest of people in new things, when reasons and facts must create a new value, as, for example, in the introduction of rules for safety and hygiene.

5. To show how desires can be realized.

6. To secure, among people who will not deliberate, confidence in and receptivity toward suggestion, by showing that there is at least a reason in the minds of others.

7. To emphasize unusual "talking points" of any proposition.

A logical argument can show people why they ought to act; but, unfortunately, it raises a defensive attitude. Therefore, persuasion succeeds more readily when reason is supplemented by emotional approval. The makers of opinion, in discovering a truth, are guided by rational logic, but they generally propagate a truth as a mystical belief. Opinions and beliefs, however, are used as premises in reasoning as much as positive knowledge is used. Thus opinions and beliefs, although unsupported by facts, gain exceptional force, because they come to be regarded as convictions supported by reasoning.

115. Appeal to Reason.—The art of argument is the best known part of psychology. Since Aristotle, many books have been written on the subject. Because the rules of argument apply to influencing men in business we shall, as briefly as possible, review some of them. The following are the requisites for complete deliberation:

1. People must, in relation to their experience, have a clear and definite idea of the proposition.

2. Reason shows just what they must do to realize the proposition.

3. They must consciously compare evidence of the value of the new proposition with evidence for selecting other things or for not acting at all. The comparison should be made according to established standards of values.

4. Finally, they must be led to make a logical deduction.

CHAPTER XXVII

THE BALANCE OF MOTIVES

116. Individual Decision.—Sentimental, mystical, and rational logics represent three forms of mental activity, irreducible to common terms. It is futile to deal with them in the same way, for their methods are different. So we see that, far from springing from a common intellectual source, our resolutions originate in different and very distinct spheres of activities. Notwithstanding their mutual action and reaction, sentimental, mystical, and rational logics influence separately the behavior and actions of men; sometimes one and sometimes another predominates.

Since the conclusions of the different logics differ from one another, one would think that they would constantly conflict and create permanent, distressing perplexity. But, in daily life, this is not so. A state of equilibrium establishes itself among these contrary tendencies; and, according to the necessities of circumstances and habits, our self compromises with the discordant tendencies of these logics and is never embarrassed in justifying their contradictions. In time of variation, when we need to form new habits, we do not adapt ourselves so spontaneously. Then, the equilibrium of the tendencies of the different logics is disrupted; these tendencies, as competitors struggling for supremacy in a truer expression of self, enter into conflict. In such a perplexity, we hesitate as

to what course of conduct to follow. Then, how is our decision effected?

A young man has four possible choices. He desires immediate gratification, which he can satisfy by present earning; he realizes that he should postpone present comfort and prepare himself for a greater opportunity in business; he believes that a government position would afford him greater prestige; and he can accept a sure position which his father at home offers him and about which he knows all the facts. We have in this case the conflict of four tendencies; namely, immediate gratification, ambition for a big future, belief in prestige, and rational conduct. A choice must be made. This is done by balancing the conflicting forces against one another. The stronger desire overwhelms the others and motivates behavior. Such a decision is reached because, in some way, one tendency is stimulated more than the others, so the balance of motive is swung in the direction of the strongest tendency. This obtains by conscious will, by unconscious will, by deliberation, or by external suggestion.

117. Collective Decision.—A decision is simple enough to make when one individual considers a single act; but when a collectivity has to determine a type of general behavior which involves the whole complex of life, the decision is more difficult. An attitude of coöperation, for example, is not a matter of an everyday decision made by the individual worker. It is a general attitude of the collectivity of workers, stimulated by their industrial and social conditions. In such a case, indeed, human aspirations, traditions, conflicting doctrines, personal opinions, and many facts and technicalities of business relations and of production present to the mind a bewildering number of factors which may associate in numberless

ways and reach contradictory conclusions. Then, the perplexity of the member of the collectivity becomes really distressing, and in despair he rallies to the conclusion either of the majority or of one in authority. Thus general behavior becomes a question for collective logic to settle.

We have analyzed in Chapter XVIII the characteristics of different types of associations, namely, the mob, the public, the sect, and the corporation. In every case, the manner in which the members of an association influence one another constitute collective logic. The predominance of sentiment, of belief, or of reason distinguishes the logic of one association from those of others and determines what the opinions and conduct of a collectivity is.

118. Conclusion.—The perplexing conflict of our different logics is caused by the fact that each logic constitutes a world in itself which makes a decision of its own and competes for supremacy. Greater social stability might be attained perhaps by functionalizing these different logics and coördinating their functions for a common purpose. For example, sentimental logic should determine *what* type of conduct must be adopted; that is to say, it should stimulate coöperation in the pursuit of ideals. Mystical logic should create ideals and a current of opinion which explains *why* coöperation is right. Rational logic should show *how* ideals can be realized. When men know how to associate their sentiments, beliefs, and reason in the pursuit of ideals, they know how to transcend the limits of their ordinary conditions; and, they will do so. We did it in the war, we can do it in peace.

The conduct of individuals can be influenced favorably to secure constructive action for common benefit. But

the motivation of a collectivity does not consist in settling each case of perplexity by getting a favorable decision for each course of action, for this is impossible. It consists in not allowing perplexity to come into existence at all. True motivation of the collectivity of laborers consists in functionalizing the different logics by establishing a set of stimuli so correlated that each logic coöperates with the others for a common purpose.

CHAPTER XXVIII

HOW TO STIMULATE VITAL ENERGIES FOR ACTION

119. Stimulating Appetites.—Activity is stimulated by biotic logic; that is, by satisfaction resulting from proper function of vital organs. Since biotic logic operates in subconsciousness, the language of reason cannot influence it. The stimuli of biotic logic are pleasurable conditions.

Organic promptings influence behavior in two ways: *first*, organic sensation of pleasure produced by comfort in itself is dynamic; it stimulates vital processes and arouses natural activity; *second*, when desire to satisfy more wants is felt, a consequent motive induces the subject to make more money with which to satisfy those wants.

Appetites are fundamental instincts; but since the primitive expressions of appetites are rather coarse, these expressions should not be excited lest they degenerate into greediness and dissipation, the effects of which would be regrettable. They should be stimulated by refining the taste and by elevating the standard of living. The influence of school and social agencies for better hygiene and the establishment of factory lunch rooms, intelligently conducted, set a wholesome example of better living and make for greater self-respect. In addition, the eating places of industrial districts should be encouraged to provide better food and more congenial surroundings. Fur-

thermore, social agencies should educate more girls in domestic science and in good housekeeping, because wholesome food is a fundamental stimulant of activity. Such an improvement in the standard of living should, of course, be accompanied by a corresponding opportunity for making the money which the new standard requires. Failure to do so would certainly increase industrial unrest.

Hunger is the pain most feared; love, the pleasure most desired. Let us see what Ordway Tead has to say about the latter:¹

The sex instinct offers a familiar illustration of the principles which seem to underlie the functioning of all innate tendencies; namely, that, if a strong instinct is thwarted and the energy it summons is not turned into other satisfying channels, it still seeks its own satisfaction with increased intensity in a perverted form and with consequent indiscretion. This is the familiar "suppressed desire" of the Freudians.

The application of the theory to other instincts gives such fruitful results that it can constitute for the present a tentative working hypothesis. Conduct which might otherwise appear to be completely capricious and malicious will be seen to be the perverted outcome of a cruel suppression of natural tendencies when viewed as tardy satisfactions of imperious impulses. And acts whose violence and extravagance are incomprehensible can be understood as the inordinate satisfaction of long inhibited desires. The facts of suppression, perversion, and unrestrained indulgence may appear most obvious in connection with sex phenomena. But the mental conflicts, the unconscious but carking yearnings for expression, the brave effort to gain an outlet in one direction when another is hopelessly blocked—these are common to other impulses as well. In fact, the current industrial unrest is due in great part to the enormous ac-

¹ Ordway Tead, *Instinct in Industry*.

cumulation of suppression which the instincts of workers have undergone in the grim effort to get a living.

The most important fact about the relation of sex to industry has already been suggested. We must become sex-conscious in our industrial dealings—conscious of the place and potency of sex, not in a smirking, apologetic way, but conscious of it as an essential and essentially sound and wholesome constituent of human nature. It is not the knowledge of sex matters and motives that need alarm us so much as it is the use of this knowledge for ulterior and hurtful ends. We are at a point in our dealings with affairs of sex where our salvation is not in stopping halfway, but in going on, in making current and accepted the fact that our sex life is not an evil thing and that the promptings of sex are not vicious and low unless they are deliberately made so.

Irving Fisher said:²

The great instinct of love, or of home-making, is a fifth instinct and one vital for society. The homeless migratory I. W. W. is an example of what occurs when life is deprived of its satisfaction. A man thinks of his own family as part of himself. His success means their happiness. Any action on the employer's part which affects family welfare immediately arouses resentment. The unrest caused by the inability to enjoy family life or by bad instinctive life outside the plant is demoralizing. In a word, conditions of employment should, in every way, conduce to a happy family life.

120. Stimulating Vital Energies by Means of Pleasure: *I. Fatigue.*—The pleasure of ease is impaired by fatigue. The indication of normal fatigue is the way by which the organism shows that it has expended the amount of energy of which it is capable. The pain caused by fatigue is due to chemical and physical changes within

² *Annals of the American Academy of Political and Social Sciences*, January, 1919.

the muscles. This feeling may be aggravated by nervous fatigue which results from mental strain but may be also imaginary and produced by contagion. The pain of fatigue is a claim for a period of rest for recuperation. Says Professor Fred. S. Lee: *

The very frequent indication of fatigue in a study of output and the recognition that fatigue is an enemy to high production bring fatigue into great prominence in any study of industrial efficiency. A certain degree of fatigue is the expected result of a day's work; it is normal; and when it is not revealed in the output, it is questionable whether the individual is approximating his capacity as nearly as he should approach it. When, however, the curve of output does show a falling-off, it is not necessarily a sign that fatigue has become excessive and it not necessarily conveys a warning that the output should be cut down. It is allowable to consider whether output may not even be increased by altering the conditions of work.

William James has shown that by will power the first sensation of fatigue may be overcome and that a consequent second wind can increase the productivity of a man, if he is free from worry and strain. But modern physiologists have proved that excessive stimulation can overwork the worker and thus reduce his productive life down to such a short period as twenty years; whereas a man should be able to work forty years. Until recently, it was admitted that the worker might be speeded to his maximum effort provided he freely consented to do so. But the present ethics of society, expressed by unions and scientists, denies the individual the right to overexertion. His duty is to increase his racial and social value. Nevertheless, it remains probable, from the mass of observations brought to light in war industries, that, under the

* F. S. Lee, *The Human Machine and Industrial Efficiency*.

right conditions, labor might without overexertion increase considerably the output of industry.

Experiments are now being conducted here and abroad to determine physiological data as to the fatigue element and as to the most advantageous length and distribution of resting in relation to working periods. But physiology has not yet offered practical rules for the organization of works. Meanwhile, the safe way to get the maximum organic efficiency is the one suggested by the law of conservation of energy, that is, the extension of the use of labor-saving machinery, and the elimination of useless movements. The substitution of mechanical for man power is not a haphazard but a sure way to decrease fatigue and to maintain a spirited disposition on the part of the worker.

II. Fear.—William James, in discussing fear, said:⁴

Fear causes an overcontraction of the free association of ideas and of motor processes. Its restrictive influence upon organic and mental life causes pain and worry and breaks down attention and concentration and troubles the coördination of movements. Fear is always accompanied by worry which engenders a most depressing nervous fatigue. Contrary to the wholesome physical fatigue from which one recuperates overnight, the depression produced by worry seems to aggravate constantly until the subject breaks down or gets some chronic trouble.

The way to overcome the restrictive influence of fear was pointed out several years ago. Professor Lee Galloway said:⁵

In a consideration of welfare institutions and industrial betterment, we must include the provision of safety devices against accidents and fire. There is no question but that if

⁴ William James, *The Energies of Men*.

⁵ Lee Galloway, *Organization and Management*.

the employee's peace of mind is assured and if there is no permanent nuisance or danger staring him in the face, he can devote his attention and energy more strictly to his work. In factories it is very necessary that proper screening and belting around the machines be provided.

The same principle holds good in every case where danger is inherent. Fire escapes and fire drills are introduced to impress the idea of security against danger as well as to secure safety. The fear of being discharged or being laid-off has the same effect. Consequently, an atmosphere of security and confidence in the permanency of employment conserves energy and stimulates its release for useful purposes.

III. Sensuous Pleasures.—The depressing effect of inadequate temperature, ventilation, light, sanitation, etc., is too well known to be expatiated upon. The way to stimulate men in terms of sensuous pleasure is to provide pleasant working conditions. The air should be reasonably cool, moderately dry, constantly renewed, kept in motion, and all the conditions for bringing about a pleasant feeling of comfort should be provided. That is the object of welfare works. Recreation has a stimulating influence of the same sort. It gives our minds and bodies free opportunity for change and growth and keeps us from growing old too fast. It is, therefore, another means of increasing the supply of labor.

In conclusion, the natural dynamic impulse of man may be stimulated to a large degree by cultivating his instincts and by adapting his environment and working conditions to the requirements of his physiological nature. Proper physical conditions and satisfaction of organic desires are the language of biotic logic; they are the persuasive arguments which stimulate workers to greater activity.

CHAPTER XXIX

HOW TO STIMULATE SENTIMENTS FOR ACTION

121. The Stimulus of Sentiment.—Sentimental desires are essentially dynamic, they motivate our activity; but, since sentiments are quite foreign to reason, they must be stimulated by some language different from that of intelligence. That language is suggestion. A suggestion is an idea which reaches man from without and stimulates in him the feeling that the conclusion presented or implied is to him most desirable. Professor W. D. Scott, whose book inspired a good part of this chapter, says:¹

We have been taught by tradition that man is inherently logical, that he weighs evidence, formulates it into syllogism, and then reaches the conclusion on which he bases his action. The more modern conception of man is that he is a creature who rarely reasons at all. Most persons never perform an act of pure reasoning; all their acts are the result of imitation, habit, suggestion, or some related form of thinking, which is distinctly below that which could be called reasoning. Our most important acts are performed and our most sacred conceptions are reached by means of mere suggestion. Great commanders of men are not those who are best skilled in reasoning with their subordinates. In moving and in inspiring men, suggestion is to be considered as in every way the equal of logical reasoning and as such it is to be made the subject of consideration for every man who is interested in influencing his fellows. . . .

The first characteristic of an act of suggestion is that the

¹ W. D. Scott, *Influencing Men in Business*.

ideas carry themselves out into action or into belief by means of an inherent tendency. This tendency we speak of as the "dynamic impulsive nature of ideas."

In carrying out suggestions we feel that we have not been forced, that we are doing just what we wish to do, that it is only the natural thing to do.

Although sentimental logic is still little known, responses to suggestion have taught practical rules which are utilized daily by advertising, selling, public speaking, and by whatever emotional appeal people can be induced to act. Suggestion can be given by means of words, images, examples, or objects which persuade men that a preferred idea is the expression of their own emotions, sentiments, and instinctive desires. When such a suggestion is felt by the subject as a realization of self, it secures direct response without delay or criticism.

122. How Suggestion Stimulates Sentiments.—

Suggestion can appeal to passing emotions, such as pride, shame, anger; to stable sentiments, such as parental love, desire of fair play, sense of the beautiful; or to the dominating sentiments called passions, such as extreme acquisitiveness, love of liberty, love of justice, etc.

Words possess a great power of suggestion because they stir the sentiments with which they have been long associated. The word "promotion" suggests an emotion of ambition; "efficiency," an emotion of professional pride; "class," a feeling of solidarity; and so on. Able orators who persuade and move large assemblies do not lose time in trying to convince their audiences by rational arguments. They stir emotion progressively. By means of suggestive words, gesture, and intonation of voice, they create a sentimental atmosphere which makes their conclusions gain acceptance without criticism.

Concrete words suggest powerful mental images, but figurative language is still more powerful. An image which moves the emotion and which pictures the subject enjoying the pleasures and advantages that await acting upon the given suggestion, is irresistible. As soon as a desire, more or less definitely aroused, is in our minds, we pursue it strenuously. An image of happiness is a personal affair, it differs with different individuals. So, whether a given idea shall be a live idea depends more on the person into whose mind it is introduced than on the idea itself. A life-insurance proposition does not appeal to the single man, but a proposition which makes his position secure may induce him to marry. In influencing collectivities, words which are connected with common experience have magical power of suggestion.

As William James said : ²

Apart from individual varying sensibilities there are common lines along which men simply as men tend to be inflammable by ideas. As certain objects naturally awaken love, anger, or cupidity, so certain ideas naturally awaken the energies of loyalty, courage, endurance, or devotion. When these ideas are effective in an individual life, their effect is often very great indeed. They may transfigure it, unlocking innumerable powers which, but for the idea, would never have come into play. Fatherland, the Flag, the Union, Holy Church, the Monroe Doctrine, Truth, Science, Liberty, etc., are so many examples of energy releasing ideas. The social nature of such phrases is an essential factor of their dynamic power. They are forces of detent in situations in which no other force produces equivalent effects and each is a force of detent only in a specific group of men.

In stimulating sentiment, the idea need not be definite ;

² William James, *The Energies of Men*.

the subject may be left to complete the suggestion by connecting it with his own experience.

As to the means of suggestion, Professor W. D. Scott says:⁸

In taking advantage of the dynamic nature of ideas the salesman has attempted to discover means of imparting ideas in such a way that they will be exceedingly vivid and hence exceedingly dynamic. In this attempt pictures, display type, and diagrams have been extensively used.

In the anti-alcoholic campaign, the picture contrasting the sordid dwelling of the drinker with the happy home of the sober man seems to have been successful. The "helping-hand" figure used for advertising the Fourth Liberty Loan was an admirable example of effective appeal. Without any argument and by eliminating all intermediary elements, it connected directly the act of subscribing with the ultimate object: the fighting soldier. All the illustrated bills used to induce men to enlist exemplified the application of this principle. The growing use in business, military, and social works of the picture that suggests action is the best evidence of its effectiveness.

Mere inanimate objects have a suggestive power. For example, a light, clear machine-room will suggest a careful maintenance of the machines. An interesting piece of work can appeal to constructiveness and pride and suggest the idea of doing something similar. On the other hand, the sight of luxury can incite jealousy, anger, and revenge.

123. Imitation.—The effectiveness of a suggestion depends much upon the person who gives it. The most powerful source of suggestion is a person who assumes,

⁸W. D. Scott, *Influencing Men in Business*.

and is believed to possess, a friendly and sympathetic attitude.

On this subject Professor W. D. Scott says:⁴

The words of a great authority are suggestions for those to whom he is an authority. His words are accepted as facts, are not subject to criticism, but are accepted unhesitatingly. This power of suggestion in the words of men with authority, with power, and with technical ability is made much use of in dealing with men. The expert workman becomes the boss of a gang and his words are carried out without question. The man whose personality carries the most weight is assigned the most important duties.

Imitation is one of the most common forms of suggestion. We imitate the acts of others without considering the advisability of so doing. This fact is most significant in understanding methods of influencing men. We imitate others more readily than we follow their words. "Come on!" is more effective than "Go on!" If I see others looking into a shop window, I too am inclined to stop and look. If others are interested in one class of sport, that is the particular form that entices me. All fashions and customs are but testimonials of the power of imitation as a form of suggestion. In persuading men it is frequently possible to avail oneself of the suggestive force of imitation even when direct imitation is impossible. Thus, pictures of others performing any particular act induce us to imitate the pictured action. . . .

We imitate most readily those whom we look up to or those who are at least our equals. This fact is taken advantage of, and the respected type of humanity is presented to us as an object for our imitation.

And again:⁵

We have come to see that imitation is the greater factor in the education of the young and a continuous process with

⁴ W. D. Scott, *Influencing Men in Business*.

⁵ W. D. Scott, *Increasing Human Efficiency in Business*.

all of us. The part of wisdom, then, is to utilize this power from which we cannot escape, by setting a perfect copy for imitation.

124. Making Suggestions Effective.—The principle of making suggestion effective is to trust that the dynamic power of words, images, objects, or examples will enforce acceptance of the idea suggested. What one says about his proffered idea is not so important as how one can induce the listener to hold the idea in mind until it arouses a definite desire. A vivid image of realization and enjoyment of the thing desired favors an immediate decision to act. The idea that manual labor is a curse will suggest to a boy that it is better to become a poor clerk rather than a prosperous mechanic. His sentiments of pride and shame dictate his conduct; the arguments of wisdom have no influence upon him. By the method of suggestion, we give the idea; and then, without any attempt to convince the subject by reason, we trust subconscious, sentimental logic to accomplish the result.

Some rules have proved useful in making suggestions effective:

1. Visual perceptions are more dynamic than auditive perceptions. Objects or pictures are more effective than words.

2. Positive ideas are more dynamic than negative ideas. For example, "Capitalize your time, learn a trade" is more effective than "Don't lose your time."

3. A single thing which gets the whole attention has more power of suggestion than a group of things, because these distract attention from one another. A single vivid impression which excites a given sentiment to a high pitch is the most conducive to consequent action.

4. Concrete ideas are more effective than abstractions.

When ideas are expressed by a story of definite people moving in a definite place at a given time, or, in other words, by an image of real life, these ideas are more suggestive than abstractions.

5. Objects which receive undivided attention are more suggestive than those which do not occupy the whole consciousness. To make the mind receptive, discard all foreign preoccupations.

6. People usually put off the things that, by the dictate of reason, they ought to do, because they know that further reasoning may change their convictions or improve their conclusions. But they do not put off the things dictated by emotion. A desire is felt as the right thing to obey. The conclusion of sentiment is final and arouses no comparison or criticism. Consequently, to be complete, a suggestion should offer a ready-made decision and be specific as to time, place, and means of realization. This is important when a response is sought without delay.

7. A sequence of suggestions, such as a series of suggested movements which leads naturally to the desired result, is more effective than a single suggestion which leaves the way to the conclusion to be thought out.

8. A feeling of value must attach to the suggested idea in order to stimulate the wish to possess or to act. Therefore, people must often be prepared before a suggestion is given.

9. In its instinctive endeavor to retain control over the making of the self, will power is constantly on the watch to oppose the intrusion of outside influence. Hence, suggestion should be offered in so sincere and sympathetic a manner as not to arouse objection. We ourselves must experience the emotion we want to propagate; no false

expression can move an audience. The suggestions given by disinterested persons who already enjoy the proposition are the most persuading. When these persons are numerous, a phenomenon of mental contagion can add to the effectiveness of the suggestion.

10. Since emotion is essentially a phenomenon of short duration, stimulation should be appropriate to time and circumstances. Moreover, when the maintenance of a certain emotional state is desired, stimulation should be varied, renewed, and progressive, because the effect of a stimulus soon wears out. On account of the variation of our sensitiveness, great discretion in the use of emotional suggestion and periods of remission from stimulation are necessary. Successive stimulations should appeal to different sentiments. When the desired course of action has begun, the stimulation can usually cease and later be repeated if necessary.

11. Classifying the means of suggestion according to their suggestive powers, we obtain the following decreasing scale: living example, animated object, inert object, colored picture, black picture, spoken words, written words.

The effectiveness of our suggestion is measured by our ability to allay suspicion, to make response easy, and to get a definite response at the right time.

125. Suggestive Media.—Among the different media for industrial use, we can particularly mention:

1. Printed matter, blackboard, bulletins, images, stereopticon, moving pictures, lectures, and conferences, as they may be required by the conditions of particular cases.

2. Prizes, which recognize remarkable performance or acts of distinction, appeal to self-assertion and pride. They may be given in many forms, as, premium, title, diploma,

congratulation, personal attention, medal, badge, right of precedence, etc.

3. Contests, which appeal to the love of the game and to pride, are generally combined with prizes. They are very effective since most of the work of the world is done by rivalry.

4. A feeling of the importance of one's job in a large organization appeals to constructiveness, to pride, to love of power, to glory for the team, to love of the game, and to submissiveness. This is effected by showing to the employees of the whole workshop the relation of their respective occupations to those of other employees, and by organizing teamwork for final accomplishment.

5. Clean, respectable workshops and white uniforms, where such are adequate, allay shame and appeal to pride, self-respect, sympathy, and æsthetic sense.

6. Besides its physiological influences, recreation appeals to sympathy, creates sociability, fosters love of liberty and of the beautiful. These sentiments are not only conducive to an optimistic attitude; they also dispel pessimistic sentiments, such as hatred, jealousy, envy, anger, revenge. Social parties, festivities, dances, club meetings, moving pictures, uplifting lectures, inspiring readings, chorus singing, bands of music, etc., are all suggestive means of attaining such an optimistic attitude.

7. The instinct of possession and its consequent love of order is wonderfully stimulated by such institutions as the credit system for house-building, savings banks, or co-operative stores.

8. An organization which provides the means for prompt redress of grievances appeals to the sense of justice. Every one in the works should know that the man at the top is always within the reach of every employee.

The function of such an organization suggests a feeling of fair dealing and engenders loyalty.

9. Professional, technical, and vocational schools develop constructive sentiments by emphasizing the dignity of the work for which they prepare young men.

10. The meeting around the same table of people of different stations of life for the administration of their common interests suggests a feeling of equality and social approval. Such meetings stimulate sociability, sympathy, self-respect, and loyalty.

11. Institutions, such as works committees, powerfully stimulate interest, responsibility, self-respect, altruism, loyalty, and the desire for self-assertion.

12. The many institutions, organized by these committees, for the improvement of health, safety, security, justice, and collective bargaining, offer living examples of the greatest suggestive value.

This nomenclature shows that many suggestions are not given by words, either spoken or written. Thus applied psychology often works automatically by the suggestions of the institutions of organized human interests and relieves the industrial leader from a good part of the burdensome technique of psychology. Every functional organism in industry and society, such as the plant, schools, popular banks, shop committees, welfare works, housing and social institutions, may be made a suggestive medium. The most effective suggestion comes from the symbols of a progressive and pleasant life.

CHAPTER XXX

HOW TO CONTROL OPINIONS AND BELIEFS FOR CONSTRUCTIVE ACTION

126. The Need for Control of Collective Opinion.

—We cannot always command a given course of action among men, because too many unknown, psychological factors conflict with our suggestions. We can, however, direct a movement of opinion more easily than we can stimulate individuals to do specific things. Indeed, all great social movements have been directed by influencing opinion. At present, the movement against the established industrial order is being conducted systematically and therefore is successful in transforming opinion. If a counter-movement for class coöperation is to be created with the same or rather with greater success, it should be so planned and conducted that the attitude of coöperation becomes spontaneous among those who are called upon to coöperate. Large groups of people have been unanimous in their religious beliefs because these beliefs have been regularly and systematically cultivated. The success of industrial society depends upon belief in the social significance of industry. Such a belief must be cultivated with as much care and persistence as the old religions have been.

The best way to control the conduct of a collectivity is to shape the collective spirit by influencing the formation of the opinions of the collectivity. Opinions and beliefs

govern conduct because they are already accepted as unquestionable truths. Moreover, they are associated with sentiments and so become a part of our likes and dislikes. For example, where the opinion is held that "any scheme devised by employers is deceitful," the plans of the employer are resisted. The belief that "work is a curse" drives the best men out of business as soon as they are rich enough to live at leisure. Therefore, we must create a new set of social valuations and such an attractive relationship between individual and society as to win his adherence and good will to the social order.

The next sections present a brief analysis of the genesis of opinions. The current opinions of the individual are formed mainly by impressions and personal interests; whereas collective opinions and beliefs are influenced by many formative factors, some of which arise from within individuals, while others come from without.

127. Internal Factors of Opinions.—The main factors which determine opinion from within are: character, ideals, wants, interests, passions, and illusions.

I. Character.—Besides the character of the race, the traits of which are almost unvariable, character differentiates individuals indefinitely and gives them permanent tendencies or habits which they try to justify by appropriate opinions. For instance, the autocratic boss earnestly believes it is necessary to drive his men; he does not suspect that he created this necessity. Certain eccentricities of temperament make men naturally optimistic or pessimistic, reactionary or revolutionary, autocratic or democratic, idealistic or realistic. An extremely eccentric person is not open to suggestion; but when he can be persuaded, he is prone to pass from one extreme to the opposite. The great majority of people are not hard to in-

fluence because the average man is not very eccentric.

II. Ideals.—Our ideals are vital to us, hence we readily approve every idea which supports them, while we disapprove ideas which oppose them. A socialist, for example, has an ideal of social order which determines his valuation of our present social order and makes him very clever in detecting the defects, while very prone to ignore progress in our social system.

III. Wants.—Our wants are very influential in the creation of our opinions. To create new wants is, indeed, to create new opinions. The wants created and spread by modern industry have often increased more rapidly than the means to satisfy them. Hence arises dissatisfaction which suggests to the less fortunate the opinion that our industrial system is inadequate to satisfy the needs of modern society. If the means of satisfying wants kept pace with wants, the masses would trust our industrial system. We usually think that the way to increase the means is to increase wages. Such an opinion does not take account of all the facts, since it fails to consider that decrease in the cost of living and reduction of waste in consumption can bring about prosperity as much as higher wages can.

IV. Interests.—By concentrating our attention upon things which are profitable to us, we disregard other things which interest others. Interest has the power of turning into truth what it is advantageous to believe. In shaping opinion, interest is often stronger than reason. If interest is urged by unbounded wants, it weakens morality; or, in other words, it dictates a biased set of opinions about the rights and interests of others. For example, the old-time employers, who made their fortunes out of the misery of their employees, ignored, for the sake

of their own interests, those of others. If people possessed of different interests are brought together, they learn that the rights of others are real and that certain interests, which they supposed were opposed, are identical. In this way, employers and employees can learn that it is to their common interest to coöperate.

V. Passions.—The intense sentiments, termed passions, are no less powerful causes of opinions. We saw, in Chapter XXVIII, the social effect of sexual repression. Professor Irving Fisher attributes the demoralization which the "I. W. W." evidence to lack of love satisfaction. Certain contagious passions, like hatred or vengeance, easily spread through collectivities. Then the influence of these passions becomes tremendous in shaping opinion. A remedy for pernicious passion is the stimulation of wholesome sentiment. The passion for alcohol has been corrected in many instances by getting the men to join musical societies. By gratifying the sense of the beautiful, the opinion of man becomes optimistic.

VI. Illusions.—All through life, we live in a world of fancy. Illusions of ambition, of love, of power, of glory, of happiness clothe crude reality with attraction and sustain courage. Illusion is the magician that unfailingly summons optimistic opinion. In so far as it makes life beautiful, illusion is essential; but in so far as it is used to deceive, it is, in the long run, dangerous. When an illusion on essentials vanishes, its departure can leave the way open to revolution. For example, the failure of the French Republic to be democratic produced syndicalism.

128. External Factors of Opinions.—External factors influence the formation of opinions more powerfully than internal factors do. The most important are first impressions, suggestion, affirmation, repetition, mental

contagion, prestige, fashion, custom, social environment, moral law, and statutes. The last three have been considered already in Chapters XVII and XVIII.

I. First Impressions.—First impressions result from instinctive response of the self to a given set of circumstances and create spontaneous opinion. In this case, the logic of sentiment operates on instinctive sympathies and antipathies. Reason, which takes time for deliberation, plays little part in forming first impressions. Therefore, in influencing collectivities among whom sentiment is predominant, the first impression must be pleasing.

II. Suggestion: 1. Mystical Influence.—Most of our opinions and beliefs on any subject are the result of suggestion. A mere statement is a suggestion. A positive affirmation which gives coherence to our vague ideas is a stronger suggestion; it persuades to belief or action. Every idea or conclusion which enters the mind is held as true unless it is negated by some other idea. But when there is no negation or when the mind is overwhelmed by emotion or eagerness to know, our credulity is so much increased that we are likely to believe almost anything that seems to satisfy our desires or support our illusions. Opinions often rest upon superficial grounds. A mere appearance of reasonableness may suffice. That is why men often oppose propositions which would finally result to their own benefit. In past experience, labor's opposition to machinery and the employer's opposition to high wages furnish two instances of lack of foresight or of superficial judgment based on opinions.

2. Indirect Suggestion.—Direct, forcible language is liable to arouse objection and opposition. Indirect or figurative language is likely to be more effective. For example, if a worker wants to discourage his fellow from

working according to an efficiency plan, he will not say: "Don't work on premium, the boss will make too much money," because the hearer will answer: "I don't care, I shall make money myself." In an insidious way, the worker will suggest distrust like this: "I worked on premium formerly, and I was fool enough to make too much money. After two weeks the boss cut down the rate, and finally I had to double my output for the same money." Since this statement does not suggest an objection, the mystical logic of the hearer works out an opinion which will direct his conduct. He will not investigate the case of rate-cutting, as reason demands.

3. *Suggestibility*.—Craving for explanation about social phenomena makes man ready to accept without question any easily grasped relation among things which interest him. The crudest answers to his whys satisfy him. Such receptivity to suggestion is responsible for the thoughtlessness with which our opinions are formed. Individuals differ greatly in their openness to suggestion and even the same individual is more open to suggestion on some days than on others. He also varies according to the matter suggested and is influenced more by some persons than by others. Furthermore, he can influence some more than he can others. All normal persons are more or less open to suggestion, if the suggestion is presented properly. In so far as it helps for better social adaptation, suggestibility is not a weakness. As individuals we inhibit, and we check more suggested actions than we perform. In the crowd the force of suggestion attains its maximum.

Suspicion renders an audience critical and unreceptive to suggestion. A spirit of frankness and openness allays suspicion and increases the power of suggestion. To win

the confidence of an audience, a man must have confidence in himself and in his proposition. No man can hope to influence unless he has faith in himself; he cannot win others to his cause unless he has first convinced himself of the value of his proposition for his audience. With the crowd, mere sincerity suffices; but, with an organized collectivity, only the ability to consider both sides of the question with an open mind is effective.

The autocrat who assumes to command the action of men according to his own standards and desires cannot awaken any favorable response or implant any belief. Notwithstanding the forcefulness of his argument, he arouses a defensive attitude and hostile criticism.

4. *Repetition.*—Repetition is the necessary complement of affirmation, and, therefore, is powerful in propagating opinions. An affirmation need not be sustained by any rational proof; it must only be simple, impressive, and energetic. A frequent repetition of an affirmation creates first an opinion and later transforms it into belief. Successful advertising men and politicians use repetition. Its power is so great that a man finally believes the lies he repeats constantly. By dint of repetition, the agitator, who has adopted opinions simply because they are useful to him, believes his nonsense and becomes sincere. The crowd is invincibly repugnant to the effort of thinking, demonstrating, and proving. It wants sharp affirmation and repetition of any horse-sense statements which satisfy its desires.

5. *Dynamizing Ideas.*—A rational idea has no influence until it is associated with a feeling of value. To get value it must be assimilated with the self and felt to be beneficial. The rules for making suggestion effective, given in the preceding chapter, apply to this assimilation.

In suggesting opinions, the matter is often presented in the following order :

A. Assume a sympathetic attitude toward the audience and get its undivided attention by some positive and pleasant remarks which will make it feel its need. Speak in terms of the audience and from its actual point of view.

B. In order to get the interest of the audience and make it responsive, stir an emotion of human interest which bears a relation to the proposition.

C. Stimulate a desire by an attractive representation of your proposition, then describe the proposition.

D. Make a decision for the audience and then impress the audience with proof that your suggestion serves its best interests.

In the following example taken from the experience of an illustrious speaker, the application of these rules is marked by their corresponding numbers. Observe that the speech contains no attempt at demonstration, not for lack of arguments, but because such an opinion is better conveyed in a mystical form.

1. Bolshevism is a system. It is not a hazy thing, indefinite in shape, without outline. It is a very definite, concrete proposal, with a thoroughgoing constitution containing many articles of faith.

2. We have got to understand what it is. It is simply the enthronement of one class at the expense of all others. It is the antithesis of our kind of government. It is the violation of every principle of group action and of democracy. We cannot have production go on under that system. The attempt to enthrone those who are called workers, regardless of the necessities of the others in the community, will fail.

3. How shall we guard against it? By *incessantly proclaiming* what is our idea of a democracy, fair and equal

opportunity for all, no abuse of the weak by the strong, and no unjust crippling of the strong by the weak.

4. There is one thing that will disarm the agitator, and that is the application of these principles and the bringing of every one to the meaning of the flag and the demonstration that democracy is not only a name but a way of life. . . . The salvation of a democracy is not on the battlefield, but it is in the courts of justice, in the legislative halls, and wherever there is fairness and justice.

III. Prestige.—The words of a great authority are accepted unhesitatingly by those to whom he is an authority. Men always follow confidently those whom they feel will lead them to success. The prestige of such leaders dominates minds. Prestige thus determines the great majority of our opinions. Creator of opinions and master of wills, prestige is a greater power than material forces. Prestige, rather than force, rules society. During the war, Lloyd George's prestige ruled England. Prestige attaches to institutions, doctrines, or symbols as well as to leaders; every one of them is doomed to perish as soon as his prestige is lost. Formerly, the right of property had prestige which commanded absolute submission of all. The interests of the owner of industry were second to none. To-day, capital has lost its prestige and opinion accordingly has changed as to the purpose of industry, which has become primarily social and secondarily individual. Furthermore, the discipline and morale of the armies have been maintained by the prestige of their chiefs, not by rules. As soon as the chiefs lost contact with the ranks, a slackening was noticeable.

IV. Mental Contagion.—Mental contagion is a psychological phenomenon the operations of which are unconscious to us and which results in the involuntary accept-

ance of certain ideas. The reiteration of a single idea from all sides produces a volume of suggestion whose force is irresistible. Emotions propagate readily by contagion. Ideas are also contagious, but contagious ideas are expressions of sentiments. Nothing is more contagious than joy, despair, fear, or anger. Crime and suicide are contagious examples. Contagion fosters emulation.

In everyday life, contagion may be limited by will power; but under the influence of some excitement, minds vibrate in unison and influence one another. It is natural, then, that contagion increases with the size of the crowd. In extreme cases, panics or revolutions follow. Mental contagion acts not only by personal proximity but also by means of printed matter and even by rumors. It is increased by the multiplication of the means of communication because then more minds influence one another. So we become more dependent upon each other every day, and our individuality merges ever more readily into the collective spirit. Mental contagion within our groups is so powerful that few men try to avoid its influence. Unheeded, it dictates our opinions and judgments.

Ideas propagated by contagion may be destroyed by contrary ideas or by more attractive ideas propagated in the same way. Such a conflict for supremacy was exemplified by the campaigns for and against the League of Nations.

V. Fashion.—Fashion is a form of collective appreciation which molds many of our opinions and propagates itself by contagion. Its domain is not limited to clothing; it rules politics, theater, literature, the arts, and even science. That is why the works of every epoch have so many common features. The power of fashion is considerable, for the strongest personalities scarcely dare to

evade its dictates. The fashionable opinion in Europe that a life of leisure is honorable hinders the formation of the opinion that labor is honorable, in spite of the fine praise for the dignity of labor that leaders of thought utter.

VI. Custom.—Custom is a form of collective habit which offers a ready-made opinion about everything and releases us from the trouble of thinking. Custom gains from general approbation a prestige which causes us to love traditions. Precedent has magic power. Law is based on precedents which are but the sanction of custom. Law is really effective and practically applicable only when the thing which it enforces is already customary. For example, prohibition could not have been effected if everybody had been accustomed to drink.

VII. Means of Propagation of Opinion.—Newspapers, periodicals, and books exercise a powerful influence in the propagation of opinion. The influence of newspapers is much greater than that of books, because the multitude read few of the latter. Numberless people have never had any opinion but that held by their favorite paper. The credulity of the readers toward the assertions of their papers is stupendous. In building opinions and beliefs, politics and business are based on the prestige of printed matter.

Illustrations in papers and magazines and moving pictures are other forms of propagation of opinions whose importance grows constantly. The latter form, accompanied by moving drawings, seems to be most adequate for presenting facts in an elementary way to prepare laborers for participation in the management of business.

History proves that mystical belief is all powerful, but it also proves that it is the most dangerous of double-

edged weapons. Indeed, when a collective illusion vanishes, the crowd overthrows the symbols of its past belief. Suggestion, therefore, is not to be used to deceive but to teach the new truths of industrial society and to move all parties to the realization of their common ideals.

129. The Rectification of Opinions: *I. Steadiness of beliefs.*—Opinions are not as settled as beliefs. Although they are changeable, their rectification is by no means easy. Since opinions are founded on superficialities, they may be corrected, to a degree, by argumentation; but, since the truth of an opinion is proved only by experience, a misleading opinion can best be corrected by an object lesson which shows both the evidence of error and the truth itself. For example, by showing to the shop committee the narrow margin of profits and the difficulties which confront the management, the manager can correct some mistaken opinions of his personnel.

A belief is unaffected by reason and affected very little by unsuccessful experience. A belief can merge with another reconcilable belief or recede before a stronger belief, but never before the evidence of its error. Indeed, the most unworthy of our mystical ideas have always been sustained by all sorts of arguments. John Spargo, writing of the Utopian socialist Robert Owen, says: "In face of a bitter opposition and repeated failure, he kept on with sublime faith and unbounded courage which nothing could shake." We trust so much the ideas which express our sentimental and mystical feelings that the truthfulness of these ideas seems unquestionable. A hardened autocrat or an anarchist cannot be convinced of his error. To him a truer conception is unthinkable.

II. Social Necessities.—The social necessities which are the resultant of the whole set of unseen forces which

lead society are another factor in the correction of opinion. When we are cornered by these inflexible forces, we must change our opinions accordingly. Socialism, which sprang from the harshness of social necessities, had later to reform its opinions when it was confronted with the necessities of the management of coöperative stores and factories.

III. Social Opportunities.—Social opportunities which open a career to the ambitious discontented generally change their opinions and attitude toward the social order. It is commonly observed that, as soon as they become prosperous, men radical in business and politics become conservative. On the other hand, many highly educated people have turned extremists because they have missed their chance in life.

PART IV

APPLIED HUMAN ENGINEERING



CHAPTER XXXI

PRINCIPLES OF HUMAN ENGINEERING

It is necessary to draw principles and to settle certain rules by which reason can grasp the result of observations. This is the purpose of theory; it broadens the judgment and views and makes the mind inventive. That is how a system can lead to the discovery of many truths.—J. J. ROUSSEAU.

130. Purpose of Human Engineering.—The industrial problem deals, first, with the coördination of the immense, elementary human forces into collective, spiritual units for the purpose of production and, secondly, with the integration of those units into social unity for the purpose of fuller life. The object of human engineering is to show, by building constructive ideals, how the collectivity stimulates individuals to coöperate for the realization of such ideals. This involves three different kinds of activities: production, industrial engineering, and social engineering. These activities have to be properly correlated if industrial life is to have significance and co-operation a reason.

The following is an attempt to show, in figurative language, how the laws of spiritual statics and dynamics may be applied to systematize industrial life.

Professor Fouillée says: ¹ "The laws of psychical equilibrium and movement seem to be the same as those of physical equilibrium and movement." Therefore, indus-

¹ Fouillée, *L'Evolution des Idées-Forces*.

trial life may be treated as a system of physical or mechanical forces, for, indeed, the different elements of society are as interdependent and responsive as though our world were an articulated system constantly moving toward a position of equilibrium. The method of mechanics has been used in order to illustrate clearly and simply how human forces influence human activity. It may be useful to recall some essentials of mechanics, which have been borne in mind in the elaboration of this theory of human engineering.

131. Some Principles of Mechanics.—Mechanics is the science of the motion of bodies in space and time. Granted that no movement can be produced, modified, or stopped without cause, mechanics treats of such causes, termed forces. A force is defined as any cause tending to produce or to modify motion. Mechanics includes statics and dynamics. Statics treats of the conditions of equilibrium of bodies. Dynamics treats of the action of forces and their effect.

A body is said to be in equilibrium with respect to two or more forces when these forces balance each other so that its condition of rest or motion is not affected by them. It is important to realize that equilibrium exists not only when bodies are at rest but also when they are in uniform motion.

When disequilibrium, in any system of forces, occurs, it results in a change. This change persists until a new condition of equilibrium is established. Inertia is the force which opposes change of either rest or motion.

The simplest mechanical device is the lever. As illustrated by Figure 1, a lever is a rigid bar A B movable round a fixed point C, called the fulcrum. The two parts into which the bar is thus divided are called the arms of

the lever. The dimensions of these arms are measured by the distances AC and BC.

When a force is applied to an arm of the lever, the product of the weight of that force multiplied by the length of the arm of the lever is termed the moment of that force. The moment measures the tendency of the force to produce rotation about the fixed point C. If two

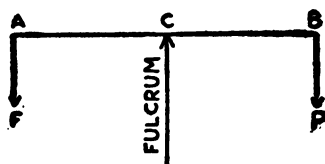


FIGURE 1. SIMPLEST FORM OF LEVER

forces F and P pull the lever in opposite directions, the system is in equilibrium when the two moments are equal; that is, when $F \times AC = P \times BC$.

Every time a body acts upon another, the latter exercises upon the former an action, equal and opposite, termed reaction. The reaction of the fulcrum C equals the sum of the forces F and P.

When such a mechanical device is practically applied, one of its arms receives the motive force, while the other is attached to the resistant force which must be moved. The motive force tends to produce rotation about the fulcrum in one direction, and the resistant force tends to produce rotation in the other direction. When the system is in motion, the expenditure of work on the side of power accomplishes work on the side of resistance. This transformation of energy balances the moment of power against the moment of resistance. Every expenditure of energy which is not embodied in the accomplishment is

wasted in friction, and thereby is opposed to the primary purpose.

The principles of mechanics, which seem to be applicable to human engineering, are:

1. The principle of inertia, whereby every change requires a causative force;
2. The principle of independence of forces, whereby component forces combine into one resultant force capable of replacing them all, although the action of each force always remains the same;
3. The principle of equality between action and reaction;
4. The principle of conservation of energy, whereby the work of the motive force always equals that of the resistant force.

We shall proceed to show how the forces involved in life's activities may be dealt with on the principles of mechanics. In this first attempt, however, the similarity has not yet been carried out as far as it might be.

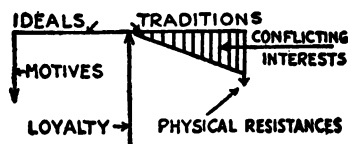


FIGURE 2. STATICS OF HUMAN FORCES

132. Statics of Vital Forces.—The activities of life are caused by forces which tend to produce changes. But since activity is primarily spiritual, we shall consider the spiritual forces as acting upon an intangible mental instrument. No change can be accomplished except through the instrumentality of two factors; one of power

and one of resistance, both of which act in opposition with respect to a fulcrum. In order that a normal activity may obtain, the elements of life must be combined so that the factor of power equilibrates the factor of resistance. In figurative language, we shall represent the intangible mental instrument by a lever (see Figure 2) upon which the forces act.

In a collectivity, the fulcrum is loyalty; it is the spiritual support formed by the assimilation of individuals into a unity strong enough to resist reaction to the other forces.

The moment of power is the product of ideals and motives of activity. Ideals, being a prospective order, are considered as a dimension, the first arm of our lever. The motives of activity arising from human desires are the dynamic forces.

The moment of resistance is the product of traditions and resistances to variation. Traditions, being the different forces of inertia which tend to perpetuate the actual order, are the opposite of ideals and, considered as a dimension, the second arm of our lever. The forces of resistance to variation are the resistance caused by the conflicting interests and the physical resistance. Mastery over physical resistances constitutes the technique of production.

We do not consider morality, opinions, and beliefs because they perform their functions in forming ideals and traditions, in stimulating motives, and in building loyalty.

These five factors of life—loyalty, motives, ideals, traditions, and interests—must be present and properly related in order that progressive activity obtains. The success of coöperative societies, for example, is due to correct engineering of these factors. Indeed, the solidarity of leaders and members and sense of ownership have

created an unshaken loyalty. Self-assertion and love of the cause are the motives of leaders. The relief of the working class is their major ideal which inspires specific ideals of service. The wasteful traditional methods of distribution are abandoned and mutuality of interests between trader and consumer is realized. No constructive activity can obtain without these five factors.

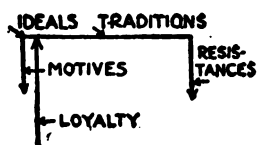


FIGURE 3. TOO SMALL IDEALS RESULT IN STAGNATION

Figures 3, 4, and 5 show how deficient motives, ideals or traditions result in a lack of equilibrium and absence of progressive life. In the survey of state socialism, we observe how absence of motives and ideals and predominance of traditions paralyzes activity. Indeed, motives, unmodified by ideals (see Figure 3) cannot be imagined in a progressive society; animals alone are so motivated. But ideals, unanimated by motives (see Figure 4), lead to inaction; that is, a state of purely spiritual contemplation of possibilities. Either motives or ideals, taken alone, are meaningless and powerless to effect progressive life. Power arises when the force of motives is applied to the lever of ideals. Then, a moment of power results which, in order to determine action, must be strong enough to overcome the moment of resistance.

On the other hand, although traditions oppose progress, they are nevertheless necessary because they assure the time required for the formation of ideals, the organiza-

tion of efforts, the adaptation of means to changing ends, and the assimilation and enjoyment of progress. Traditions are the factor of stability. Yet they need to be reshaped in order to transform obstinate prejudice against



FIGURE 4. LACK OF MOTIVE RESULTS IN INACTION

change into a joyful acceptance of progress. For, indeed, what is considered progress by some person or group is not considered as progress by other persons or groups. Absence of traditions (see Figure 5) means anarchy; that is, unsettled relations among men. Absence of traditions would result in the destruction of social life by the unchecked prevalence of individualism.

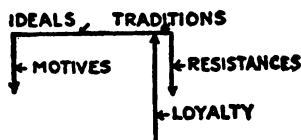


FIGURE 5. DEFICIENT TRADITIONS RESULT IN ANARCHY

A motive power must have to work upon some resistance the variation of which calls for the transformation of energy. A resistance, either physical or mental, is, therefore, a condition of activity. Nature is lavish of resistance. Although too great obstacles would make life impossible, an absolute state of ease is unthinkable and undesirable, for a life without resistance would make activity unnecessary and stop progress. Interest may act

either positively or negatively. When all the parties involved have the same interests, interest is a factor of power; it motivates activity (see Figure 6). But when the interests of different groups are in conflict, interest becomes a factor of resistance which hinders progress (see Figure 2). So we see that the lack of proportion of any one of the four factors which make for progressive

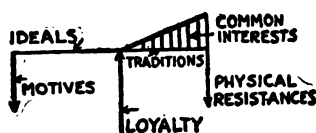


FIGURE 6. COMMON INTERESTS BECOME MOTOR

activity results in a lack of equilibrium and in the consequent annihilation of the forward movement of society.

Human engineering statics are, therefore, concerned with the systematization of the human factors of collective life; that is to say, the correlation of loyalty, motives, ideals, traditions, and interests. A collective spirit of a constructive character comes into existence by the integration of individuals into an organization in which the moment of motives and ideals equilibrates the moment of traditions and resistances.

133. Spiritual Dynamics.—The object of spiritual dynamics is the study of relationship between the human forces—motives, ideals, traditions, and interests—and human activities. It deals with causes of activity; or, in other words, it seeks to determine the principles by which stimuli are made effective for accomplishment.

The first principle of spiritual dynamics is the law of conservation of energy, which teaches that every expend-

iture of energy reappears in the accomplishment, less a certain percentage wasted in friction.

I. The Stimulus.—Let us illustrate by a familiar example how the law of conservation of energy applies to spiritual life. A blacksmith named Peter Jones owned an old-fashioned house and a very primitive forge. Because of the meanness of his disposition and of the inferior quality of his work, his neighbors employed him only in case of emergency. He knew they begrudged him the regular prices, and in return for their supposed ill-will, he tried to defraud them. As a result of such mutual suspicion, Peter Jones groped in misery and recrimination.

Finally he died, and his son Joe took charge of the forge. He had just come back from the army, and his experience had opened his mind. He had caught the idea of service and decided to apply it to his business. Of course, he has succeeded and has been patronized not only by his nearest neighbors but also by farmers from a distance, for his reputation for skill and good-will spread very fast through the country. After a while, he built a new forge with modern equipment. The next year he remodeled the house. Then he married and his wife brought with her comfortable furniture for the home. This was her property, nevertheless he enjoyed it just the same. Later his wife opened a store; then he bought a lot, built a barn, and thus by and by developed into a very prosperous citizen.

Joe had an ideal. But would he have persevered in his attitude of service without any stimulation? Certainly not. His all-round, growing prosperity was the stimulus of his industry and good-will. His work was not a mere expenditure of energy, but a transformation of energy.

He did not merely make horseshoes; he forged on his anvil buildings, home, store, etc., and was conscious of it. His energy was not wasted or stolen, but it reappeared in another form.

A similar phenomenon of stimulation and constructive reaction should be duplicated, on the collective plane, in our industrial society, in which the laboring class personifies Joe Jones and in which social works represents his estates. In our system of social coöperation, it is not sufficient to reawaken the personality of the worker; it is also necessary to organize the collectivity of labor in order to enable it to react to the stimulus of social progress as Joe Jones reacted to the stimulus of home prosperity. The good-will of labor as a collectivity depends upon the feeling that its energy is conserved; that is, that its energy is transformed into means of progress for collective enjoyment. We must realize that at present collective life makes far greater demands than individual life does. Labor must feel that its own prosperity comes from larger and more efficient production and that industrial betterment and social works result only from a surplus of wealth which industry must create. Labor must see, through the demonstration of experience, the connection between production and social progress; it must be conscious of the objective and subjective realities of social progress and must enjoy the means of progress. By making shoes in one place or machines in another, we must feel how in reality we build the city, the state, the nation, and the world. And the conscious progress of the city, the state, the nation, and the world is the stimulus which will motivate the collectivity of labor as the progress of his estate motivated Joe Jones.

The relation between industrial work and social pros-

perity seems at first not quite similar to the work of Joe and his prosperity, since unlike labor, Joe worked for himself and owned his establishment. The likeness, however, is more real than it seems at first. Joe did not own the furniture of his house, although he enjoyed it. Similarly, the collectivity of labor need not own the many institutions required by the development of modern social life. The worker need not own the school or the park; he merely needs to share these means of social progress. This similarity holds good when the individual laborer identifies himself with the ideals of his collectivity, or, in other words, when the industrial crowd is organized like a corporation for a constructive purpose.

II. Collective Stimulation.—The stimulation of labor for production consists in transferring interest from social ideals as an end, to production as a means for the realization of social ideals. For example, employer and employed made money in war industries. The money reward was a stimulus for action, but coöperation obtained from the combination of the emotion of gain with the consciousness that unity of action was needed to win the war. Patriotic sentiment transformed the emotion of gain and shaped the form of reaction. The union of motive and ideal determined the desired behavior. Likewise, the collectivity of labor must be aware of the truth that efficient production is the means for the realization of its ideals.

The following chapter gives an example of the application of our theory of influencing men in business. Let us remark in passing that this theory applies as well to selling and advertising as to production.

CHAPTER XXXII

PROMOTING LABOR REPRESENTATION

134. The Promoter.—Assuming that the management has studied a plan of organization which is believed to satisfy the particular conditions of its business, it is necessary to present the proposition to the personnel and get their adherence. The task is delicate and most important. Who will do it? If a director of personnel already exists, it is his business; if not, one should be appointed. We must realize the fundamental truth that we are dealing with the living force of industry. Consequently, there is no man in the business too big to take charge of this function. The proper man is a natural leader, sympathetic, animated by a deep interest in his work, intrusted with wide discretionary powers, and familiar with local conditions.

The first care of the promoter is to assimilate himself with the atmosphere of the works, to prepare himself for coöperation by taking down the bars between himself and the workpeople, and to be friendly and ready to learn the other fellow's point of view. We cannot talk freely with others unless there is give and take. If we are to be friendly with others, we must drop all thought of intellectual or moral superiority and meet others as our equals. We will find that, while we may be superior in some things, the employee may sometimes be our master in something else. The thought that, for the moment, he

represents the collectivity of labor may help us to get the new attitude and cultivate the patience which is necessary in building men for better self-government. The promoter must have the patience to listen to error as well as to reason and the willingness to submit to rules, regularly voted, even though vexatious; for learning by experience is the cost of democracy.

135. Steps of Promotion of Labor Representation.

—Few men see spontaneously their real interest when a change is suggested and few accept a proposition if it is presented to them in the form of a mere rational idea. The majority must be persuaded. Much more are men liable to oppose an abrupt presentation of a plan of a new industrial relationship when they already have a deep-seated suspicion against their employer. The introduction of a plan of coöperation in management is a process that takes as much time and care as a selling campaign for a new line of goods takes. No specific plan of campaign can be drawn here as an example, for the procedure should be studied for each particular case, according to the number and character of the workpeople and according to local conditions. Nevertheless, the principles of the process of influencing men in business may be suggested.

The object, briefly stated, is: to create an ideal, motivate the personnel for the attainment of this ideal, remove harmful traditions, and establish a mutuality of interests.

These points should be treated separately during the period of introduction, which may last from one to two months, according to the mental level of the crowd. It requires time to remove a long established belief in exploitation and gain confidence. The message should be presented from the employees' point of view and, because

of its clearness and simplicity, adapted to their minds. For that purpose, the promoter should study his personnel as to races, habits, moral and intellectual levels, and prevailing ideas and tendencies. He should pay particular attention to the personal interests of the leaders of labor, for he should turn them into disciples, instead of making them outlaws. The advertising manager may give valuable advice in planning the campaign, in analyzing the "talking points," in determining when arguments or when suggestion should be used, and in shaping the form of the message. The promoter, of course, should decide upon the main ideas which will govern the proposition, the final form of the prospectus, and the order in which the different points should be presented. The effect of each step should be sounded for the direction of the next. An opportunity should be offered to ask questions and clear up every doubt and misunderstanding. All objections should be met or anticipated, in order to get unanimous approval. It is useless to go ahead before workpeople are convinced that a square proposition is made to them and that you can and want to help improve their situation.

136. Creating the Ideal.—The message should be positive; therefore, it is desirable to speak about the past just enough to connect the idea of prospective improvement. For example, ideas similar to the following may be developed according to local circumstances.

The result of the constant increase in the size of industry has been the isolation of the worker and his consequent indifference to the issues of production. We never wanted such a situation. The trouble has been caused by the inability of the old systems of management to administer fairly a large collectivity. Our wasteful misunderstanding cannot last any longer. We must recognize that our interests are common and that we work together for a common

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purpose. During the war, we have had opportunity to appreciate your resourcefulness and loyalty and have come to realize that some reorganization of management must be devised through which you can get the full value of your services, share the responsibility for labor policies, and obtain quick settlement of grievances. Confident in your wisdom and ability, we want to offer to you a square business proposition; that is to say, a proposition which is equally and mutually profitable to you and to us.

Then, explain at length that the idea is not to create hardship but to associate the brain power of all for the good of all, to define and standardize relations by common agreement, to settle all questions of interest on the principle of fair dealing, and to work out together a path of continuous progress. Recall that the principle of government is to make laws for the protection of all and that likewise democratic management consists in making rules for the government of business and the protection of the interests of all. Management, thus, ceases to be arbitrary, and the personnel shares the responsibility for the rules of the game.

Now is the moment to present the main features of the plan of representation, which provides the machinery for getting in touch with every interest involved in the business and for dealing adequately with its representatives. It should be understood that absolute right of free speech will be guaranteed to the worker representatives. Outline the system through which every employee can voice a complaint, can suggest ideas, and can participate in shaping labor policies and in bargaining for wages. Every employee must grasp the general idea of the organization of which he is a prospective member and must understand how that system will assure him of the promised fair dealing.

137. Motivating the Personnel.—Stimulation is obtained by connecting sentiment with the proposition. Such connection is given, for example, in the following statement:

Industry has become a national concern for the conduct of which all are responsible. We ask you to coöperate with us for greater efficiency and progress in American industry. The stabilization of American industry and the consequent avoidance of unemployment depends largely upon our ability to expand our foreign market; and increased exportation you know is possible only through more efficient production. This can be done if we rearrange together our organization in order to secure reciprocal fair dealing for all, under the control of all. We want to demonstrate that the principle of democracy, which has made good in our government, will also secure success in our industry.

Then set a definite example of the work of committees and persuade the employees of the value and importance of their new mission. Promise that every one will have a chance to show what he can do and will be helped to do it and that the best men will have many opportunities to exercise their initiative and work constructively for the progress of humanity.

138. Correcting Traditions.—Having expressed in general terms the intention of the promotion of labor representation and having shown a sincere disposition to play a fair game, the promoter must remove suspicion by justifying such a radical departure from traditional management. Indeed, suspicion of unfairness is the harmful tradition which hinders progress. Paint a picture of fair dealing which appeals to the senses and imagination and directs deliberation toward the conclusion that justice on both sides has become the cornerstone of social

coöperation. Convince employees that service, coöperation, and justice will supply their needs better than anything else will, if an adequate organization is provided for. Persuade them that you are ready to pledge yourself to such a policy of justice if they want to join and progress. That is why you want your employees to organize and send their representatives to sit down around the meeting table with your representatives and talk over with frankness their differences and interests.

These are merely general ideas. No doubt the promoter will find a justification best suited to the particular spirit of his personnel and connected, if possible, with recent local events. It is useless to preach. The aim is to persuade the employees that the proposition is sincere, that it will prove equally profitable to both parties, and that real prosperity is to be derived from striving for a common aim. A successful example of democratic management in the neighborhood may be pointed out as an excellent reason for imitation.

Now correct traditions should be established. In order to avoid misleading suppositions, a statement of the principle of proportional representation will be wise. It should be understood that the idea of democratic management consists in a new mode of association which proportions the voice of each party to its particular interest in the different phases of industrial relations; such as production, wages, justice, welfare, social institutions, and recreation.

139. Establishing Community of Interests.—Attract the attention of the audience by showing your understanding of their need for more comfort and more progress. Make clear that all progress which labor can expect springs from industrial efficiency. Show, by a

simple argument related to your own business, how the idea of service and coöperation is mutually beneficial. For example, point out that a shoe factory is only a big shoemaker and clothing industry is only a big tailor. Prove that the more they produce, the more they can exchange for a day's work. Then, explain that to render the best service is the only way to receive the best services from others. The new organization will offer ample means to secure, as nearly as possible, to the individual worker as well as to the collectivity of labor, the market value of their effort and coöperation.

140. Closing the Campaign.—With a personnel composed of high-class men, an enthusiastic response may obtain, but with the lowest class of labor a mere passive acquiescence may be the only result. In this latter case, actual experience is the main medium of influence.

It may seem unreasonable to take so much care to grant new privileges to workpeople; but, in order to build a receptive mental attitude toward the plan, it is necessary to convince them they are not fooled. The good will of the workpeople, indeed, is much more important than the plan itself. Misleading statements and exaggeration should be avoided. It suffices that the men be persuaded that a new era of fairness has begun. By and by experience will discover the advantages which the attainment of progress will bring to them. In that discovery is the joy of the game. It is not advisable to anticipate.

As soon as the personnel is prepared and its confidence and adherence is secured, the moment to invite it to proceed to the first election has arrived.¹

¹ For the procedure of nomination and election see W. L. Stoddard, *The Shop Committee*.

141. Promoting the Plan.—After the election of the works council has taken place and the committee on promotion has been appointed, the promoter should present the plan to the latter committee and explain with full details the significance of every article and the intention of the company. Since the question is not to give up the management of business but to organize the management on new principles, he must clearly explain these principles and secure their acceptance. In order to persuade the committeemen, he must make this presentation with the same care as described above. Then, when they are thoroughly informed, the committee should deliberate freely and shape the final draft of the constitution to be introduced to the works council. Starting from the principle that workers have no definite idea of what they want, the promoter should give the council full information in order to prepare them for effective deliberation. During the deliberation of the council, the members of the committee on promotion should direct the debate. The plan should not be presented as a rigid charter unchangeable forever, but as an elastic organization susceptible of development as changing necessities demand and also as workpeople gain wisdom and ability in self-government.

When the constitution of the coöperative management has been voted upon, it should be immediately printed and distributed to every employee; and all the worker representatives should take charge of introducing it to their constituents, of explaining its significance and bearing, and of assimilating their constituents with the new organization. Of course, thorough assimilation will result only through experience, but the representatives should be induced to continue their propaganda until

the works council is regarded as the most important progress in industrial evolution and as the safeguard and symbol of righteousness. The crowd may not understand the intricacies of the organization, but they want a symbol which embodies their creed and their hope. The whole success and stability of coöperative management will depend upon their reverence for that symbol. It is important, therefore, that its work be efficient, that its sessions be frequent and held with as much decorum as is consistent with simplicity, and that great honor and consideration be attached to the representative functions. The record of the work of the works council should be posted promptly and conspicuously on the bulletin board of the works in order to show results and keep the employees interested.

142. What to Start.—The question arises as to what activities should be dealt with to start and educate the workpeople in coöperation for management. Some advocate starting with questions which do not affect production at all, and this seems to be wise from the educational point of view. But, as long as the vital question of interests is not resolutely settled, suspicion of bad faith will attach to the organization and compromise its success.

Says Professor John R. Commons:²

The committee may have only a nominal existence and its recommendations may be disregarded by the management. It may be permitted to deal only with social and athletic activities. It may go further and deal with accident and sickness prevention, mutual benefits, and insurance. These are, indeed, important and necessary beginnings. They deal with non-controversial questions, where there is no ultimate

² John R. Commons, *Industrial Good-Will*.

clash of interests, since the disputes arise over methods to be adopted for reaching an object already agreed upon. The critical question is whether they are permitted to go forward into the truly bargaining activities which decide the ultimate clash of interests—whether they take part in fixing wage and piece-rates, time and speed standards, apprenticeship and training, introduction of new processes, substitutions, transfers and promotions, the execution of standards nationally agreed upon. On these points is the test. . . . If he (the employer) starts it as a subterfuge, he is probably laying up trouble for himself and for others. If he starts it and continues it with recognition that as fast as possible the workers shall learn to govern themselves and to govern the shop in coöperation with himself, then he is truly performing a public service. . . .


The National War Labor Board plan which can settle grievances and questions of hours and wages seems to be a good starting step in connection with a conference committee.

143. How Fast to Develop Coöperation in Management.—The promotion of a progress which constitutes such a radical change in industrial relations is in itself a social progress. As such, the development of the committee system is necessarily subject to a slow process of evolution. The workers must understand this. The introduction of a full organization as outlined in Chapter XVI may take several years. Sometimes a part of the plan will suffice. The time depends upon the kind of workpeople, upon the fairness of the spirit which animates both sides, and upon particular circumstances. Slowness of development is not regrettable, for every partial progress is a source of renewed enjoyment and interest. The essential is that honest efforts for advancement be followed by corresponding progress.

The success of the committee system is not a question of handing down or forcing up; it is a question of training and of getting results. Every successive step forward may be taken as soon as both parties are ready and agree to discharge, for mutual benefit, a new function.

144. The Function of Committees in Human Engineering.—It would be a mistake to let the committees work alone and then let the manager grant or reject their proposition according to his own sense of justice. No solution of the labor question can be expected from the spontaneous working of the committees. This solution will depend upon constructive leadership. Therefore, the committee system is first of all the instrument through which the director of personnel enters into contact with his men for the purpose of organizing a system of human forces for constructive coöperation. These forces—loyalty, ideals, motives, traditions, and interests—determine progressive activity and correct relationship in industry.

The director builds loyalty by playing a fair game and by imparting correct opinions upon all industrial matters that concern the workpeople. A continuous educational movement is necessary to form a correct, collective opinion and to maintain the spirit of loyalty. Through the committees, the director learns the facts of vital concern to the workpeople and then imparts his views to the committee in order to build with them, by action and reaction, the collective ideals which must give work significance. He eradicates noxious traditions and standardizes the conditions which help to build favorable traditions. He discloses the identity of interest of employers and employees and broadens the views of the latter as



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well as his own. And, finally, he motivates his personnel by stimulating the proper sentiments. The following chapters show how these principles apply respectively to production, industrial engineering, and social engineering.

CHAPTER XXXIII

ORGANIZING FOR UNITY

145. Managerial Unit.—A number of executives, committees, and employees do not possess any particular virtue of their own, unless they are organized in teamwork for definite purposes. Although their activities are specialized, they are closely interdependent; so, in order to realize a common end, they must be correlated as though they were no longer different parties but one spiritual unity inspired by constructive ideals. Such unity obtains through three connecting links: manager with officials, officials with workers, and workers with manager.

Since the executive organization is, in fact, only a mere extension of the manager's powers, it is necessary that the whole staff be closely bound with its chief. The minor officials cannot form correct, specific ideals and manage the workers properly unless they are in close touch with the manager and permeated with his intentions and policies. Consequently, for the spiritual organization of the managerial staff, committees of foremen, committees of officers, and an executive council composed of executives of all ranks should be provided. Through such committees, the manager gets in contact with his officials for the purpose of shaping and reshaping their vacillating policies, while he identifies himself with his staff and forges it into a homogeneous unity.

146. Connecting Employees.—The same process of assimilation should take place between foremen and employees. The principle of the new foremanship, which gives foremen prestige and influence, is to understand the worker, to speak in terms of his aspirations, to impart to him the ideals and instructions of the firm, to bring out his latent abilities, and to build up his workmanship in order to make him more productive, for the mutual benefit of worker and firm. A man who is misunderstood is isolated amidst his fellows; no fear or compulsion can bind him in teamwork. Mutual comprehension between worker and foremen is the first requisite for coöperation.

147. Assimilating the Manager.—In order to consolidate the whole personnel into a constructive organization, manager and employees, by action and reaction, must complete the process of assimilation, for opposition is sure to arise in response to any variation which disturbs routine. Such opposition in its genuine expression should be reflected upon the manager. Opposition arises either because the executive's proposition is not clearly expressed, is distorted in transmission, or is inherently inadequate. Deficient expression and distorted transmission are likely always to play a part in the process of assimilation and sometimes cause such a misunderstanding that an otherwise acceptable proposition may look offensive. When the same channel is used for the transmission of ideas and for their reflection from below, the manager may become really isolated. He cannot assimilate himself with his personnel because he gets but a distorted response to his distorted ideas. This situation breeds a chronic state of confusion and distrust. The shop committees offer an independent return channel

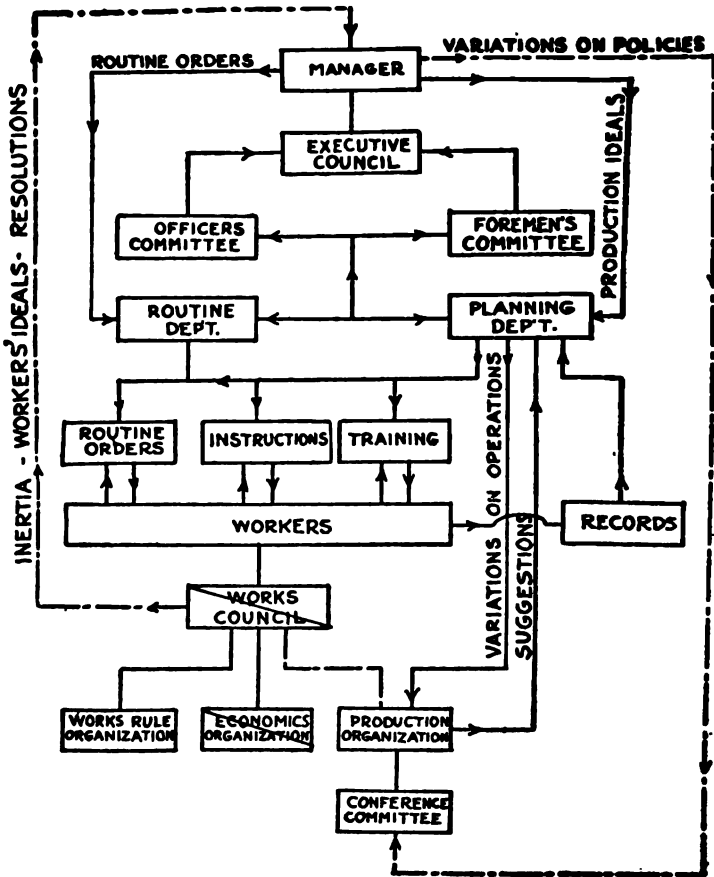


FIGURE 7. TRIPLE CIRCUIT OF RECIPROCAL INFLUENCE FOR THE ORGANIZATION OF SPIRITUAL UNITY

for concerted action and for direct reflection of the workers' feelings upon the manager. He is then able to rectify his initial action or to shape the right mental attitude of the personnel, which is, after all, the only thing that counts.

Variation means either innovation or continuance of obsolete traditions. In the latter case, the workers' ideals may consist in a wish to change the manager's mind. The process of assimilation to obtain unity influences the manager as well as the workers and it identifies him with the cause of which he is the symbol. A living organism is thus created with unlimited power of adaptation.

The chart (Figure 7) shows the closed circuits of spiritual influence between the manager and his officials, between foremen and employees, and between the manager and employees. This provides a systematic transmission of ideals and a free vent to all feelings. No antagonistic energy should be allowed to accumulate at any point, lest it explode.

148. Symbol of Unity.—Physical means can also offer aid in organizing for unity. Besides clearly written instructions to every one regarding his functions, mutual relations are defined by an organization chart, which is the visible frame of the collective spirit. Professor Lee Galloway says:¹

A chart showing clearly the line of authority and responsibility of each individual in an organization should be so simple that it is self-explanatory upon inspection. Each man's position is thus made perfectly clear and he easily informs himself as to what course to take when transacting business with other departments. If applied to a factory, each workman will know to what particular gang boss or job boss he is directly responsible; each gang boss or job boss will know to what foreman he must report; each foreman will know to what superintendent he is responsible; and each superintendent will know where his authority begins and ends with other departmental heads. Furthermore, the chart should show who is responsible for machines and equipment.

¹ Lee Galloway, *Organization and Management*.

Now, a similar chart of the representative system will complete the scheme by showing the functions of the committees and their connections with the management and the workpeople. This chart may be a development of Figure 7 on which every committee appears separately.

CHAPTER XXXIV

HUMAN ENGINEERING IN PRODUCTION

149. The Object of Human Engineering in Production.—The object of human engineering in production is to stimulate willing coöperation of workers for efficiency.

The intensity of productive life is directly proportional to the factor of power—ideals and motives—and inversely proportional to the factor of resistance—physical conditions, traditions, and conflicting interests. Stimulation, therefore, consists in increasing the factor of power and decreasing that of resistance. Loyalty has been discussed in Chapter XX.

150. Building Ideals.—The manager identifies himself with the ideals of utility devised by the entrepreneur and takes them as guides for the formation of his own ideals of production. He conveys his instructions through his various officials, whose duties are to analyze general ideas into elementary tasks and develop specific ideals of quality, quantity, cost, and time. The first phase of production is a purely mental process of developing and transmitting ideals. The second is the physical operation which consists in materializing ideals. It is evident that the exactness with which the thought of the manager is reproduced in the product depends upon how well the thought of his officials and workers conforms with his own. In other words, the exactness of the

realization of his ideals depends upon the spiritual unity of his organization. During both these phases, modern methods of management furnish forms and records by means of which he can convey orders and supervise their realization.

Ideals are fundamental in efficient production. Therefore, every one should know the purpose of his concern and the relation of his own work to the final object of pursuit. Every one should be thoroughly instructed as to the ideals of quality, quantity, cost, and time which he is expected to realize. No foreman or worker can conjecture what are the ideals which govern every order; he must be informed.

The ideal of quality may consist in strength, lightness, uniformity, or precision, or in one of the many forms of beauty, etc. The particular characteristic which makes for the desired quality may vary indefinitely. The worker should be instructed as to the defects which lessen the particular quality of his work and be provided with means for detecting these defects and of estimating the quality. Only when he is made his own inspector is he in a position to think on his job. As long as he does not know exactly *what* to do, he is unable to think *how* to do. Quality does not mean the absolute best, but the best in a given grade. Consequently, in order to avoid the many misconceptions concerning quality, the manager must impart his intention about it. For example, in mechanical work it is almost impossible to make pieces exactly to dimensions. If only one figure is given for each dimension, the worker has no ideal of precision; but, if a maximum and a minimum figure are given, he has a definite ideal and can manage to attain it.

Whether the ideal of quantity is figured as a general

or individual output, a definite ideal is essential to attract the attention of the operative to his productivity. There cannot be any thinking about quantity unless a standard is provided.

The ideal of cost may not interest the worker; but if he is offered an efficiency reward and if he knows that lower cost means expansion of business and secure employment, he may become interested in problems of cost.

Workpeople have generally no idea of the importance of prompt delivery of goods at the promised date. They should have ideals of time. In order to stimulate interest, they should have before them the record of delivery efficiency and the date of delivery of each job should be fixed so as to be attainable and some kind of reward should be given for efficiency in delivery.

151. Motivating the Personnel.—Motives spring from human desires. To the manager, many desires are reducible to terms of money, since money is the medium whereby certain desires may be satisfied. Nevertheless, many desires may be gratified through the very expression of life in work. Indeed, non-financial incentives stimulate production as much as money rewards. Of course, each particular concern must devise a plan for such stimulation, and bear in mind that, in motivating the personnel, the management must employ variety of action and exercise wise moderation, lest the workpeople lose responsiveness.

152. Examples of Motivation: 1. Graphs.—In a paper presented to the American Society of Mechanical Engineers, New York, December, 1918, Robert B. Wolf showed how, without adding equipment or increasing pay, he applied non-financial incentives to a run-down

paper mill and increased its yearly production from 42,000 tons to 110,000 tons, and how he turned the quality from a poor one to the very best. This case is noteworthy, because pulp cooking does not seem to be a field for the development of ideals.

Mr. Wolf's ideals of quality and quantity depend upon a number of factors, such as temperature, pressure, and color, which vary according to time. When the correct temperatures, pressures, and color are obtained, the quality and quantity of pulp follow as a matter of course. Therefore, he skillfully transposed his ideals of quality and quantity into ideals of temperature, pressure, and color and, thus, made the correct values of these factors specific ideals for the cooks. Granted that the cooks' ideals are expressible in figures, the whole secret of stimulation consists in recording the individual daily and monthly achievements, in classifying the men according to their performances, and in posting the records. No premium was allowed, but the cooks received high wages.

Three instincts were appealed to—pride, workmanship, and self-respect. Mr. Wolf said:

I maintain that this was all the result of the freedom our men were experiencing because they were working in an environment which stimulated thinking. They had ample opportunity constantly to increase their knowledge of the underlying natural laws of the process, and were therefore able to realize the joy which comes from a conscious mastery of their part of the process.

II. The Blackboard.—The blackboard is now widely used as a means of stimulation. Let us consider the case of a machine shop which has accepted an order for one thousand tools for exportation, to be delivered in one

month. Here is an ideal which should be impressed upon the workers, not only as a final term of delivery but also as an ideal of daily output. The motive which will vitalize such an ideal may be, for example, the patriotic necessity for America to export her products.

The following first announcement may be made on the blackboard for one week:

We have an order for 1,000 tools to be delivered for export on September 30. Thus we trust you to put out an average of 20 tools every day.

We need foreign trade to steady production and prevent unemployment. Exportation helps to build a greater America.

After a few days, this message may be replaced by a graph showing the progress of work and daily output. If the desired result does not follow, another stimulus may be added like this:

The U. S. cannot hope for foreign trade until it can compete in delivery service with other nations.

When the desired result is attained, the fact should be posted on the same blackboard: as, for example:

You kept the promise of America to the foreign market. We can hope for more trade. Thank you.

Of course, many different appeals may be made according to circumstances and the kind of workpeople.

III. The Bulletin.—The bulletin made upon the principles of advertising has proved successful. It may be used periodically to stimulate the sentiments associated with the different phases of production. Let us develop, for example, a series of stimulating bulletins devised for an automobile factory which is to enter a new line of higher-grade cars.

YOU HAVE AN OPPORTUNITY
TO START A NEW LINE OF
HIGH GRADE CAR
CAN YOU DO IT?

Here is an ideal of quality associated with three motives: a challenge to workmanship, a chance to grow, and self-respect stimulated by responsibility.

PRECISION
IS REQUIRED FOR OUR NEW
CAR. · LEARN HOW TO USE
OUR NEW GAUGES AND IN-
CREASE YOUR SKILL. OUR
INSTRUCTORS ARE AT YOUR
SERVICE.

The ideal grows more definite. A specific appeal is made to workmanship and ambition as motives. The

offer of service makes the response easy and inspires confidence.

QUALITY WEEK

DON'T HURRY. WE WANT
FINE WORK. THE FLAG
WILL BE OFFERED TO THE
SHOP THAT SHOWS THE
LARGEST PERCENTAGE OF
PIECES ACCEPTED BY THE
INSPECTOR.

An inducement is made to learn thoroughly what are the signs of quality of every particular job. This ideal is associated with the motives of pride and self-respect.

YOUR SUCCESS IS
AHEAD

OUR NEW CAR HAS BEEN
PRAISED AS THE MOST RELI-
ABLE. THANK YOU. THE
CONTEST FOR QUALITY GOES
ON.

The first ideal is attained and loyalty consolidated by frank recognition. This ideal is maintained and associated with the motives of pride and self-respect. A new ideal is implied and expected.

LET US HAVE A PAYING
BUSINESS. YOUR COMMITTEE
HAS SET A SCHEDULE OF
TASKS AND RATES FOR QUAL-
ITY AND OUTPUT. MAKE
MORE MONEY.

The ideal of output is introduced, and with it the corresponding powerful motive of reward proportionate to individual effort.

OOO CARS
MUST BE TURNED OUT EACH
WEEK TO SECURE THE STA-
BILITY OF OUR CONCERN.
CAN YOU DO IT?
SUGGESTIONS ARE WELCOME
AND OUR HELP IS AT YOUR
DISPOSAL.

A collective ideal is set forth. A collective responsibility is suggested. The motive is a challenge to self-assertion. The good will of the workingmen is induced by the coöperation of the management.

Then to complete the stimulation, a large American flag may be presented to the leading department for each two-week period. And it has been a success to offer, to the department winning the flag three times, a supper attended by the officials of the company.

The sentimental incentives are very powerful and can succeed occasionally without the accompaniment of financial reward. But good will is exceedingly sensitive to abuses of this sort; so the success of the method depends entirely upon the upright loyalty of the executive who uses it. It does not matter whether the reward is a high salary or a premium as long as the extra effort is paid for. The sentimental incentives should never be used as substitutes for money. They merely stimulate interest and good will which money must reward. So far, we have analyzed the factors of power. Now let us study the factors of resistance to production.

153. Traditions: *I. Inertia to Variation.*—The intensity of productive activity increases in inverse proportion to the inertia of traditions. In production, inertia proceeds from inexperience, lack of skill, bad habits, uncorrelated relations, obsolete traditions, fear, self-conceit, pride, love of ease, ignorance, coercion, exploitation, isolation, etc., here designated by the common term "traditions." Since the factor of resistance to production is the product of traditions by the physical resistances and by conflicting interests, these elements should be decreased methodically to the lowest minimum possible in order to obtain high efficiency.

Inertia is at a minimum when a perfect routine is established; and experience has demonstrated over and over again what high efficiency a routine organization can attain. Routine alone makes possible the operation of a complicated organization, it relieves a strain of attention and worry which would otherwise render impossible the management of a large plant. The physical resistance is decreased by mechanical equipment and by mastery over the tools. Since the management has taken

the responsibility of operations and processes, the workers are no longer the originators of their working method. Unskilled and semiskilled men are expected first to learn their operations and repeat them faithfully, then to improve their particular ways and movements, and finally to make suggestions if they can. Generally, their work must first be laid out in every detail by a planning department. A part of their work is already assimilated into routine; another part involves a slight variation which may be easily attained after definite instruction. In such cases, the will power of the men is strong enough to overcome their own inertia.

Another kind of work may involve a greater variation opposed by a real force of inertia. Will power cannot be relied upon for quick self-adaptation. Men must be instructed, drilled, and trained in their respective performances until their activity becomes automatic and they can be given full responsibility.

Still more extensive variation may involve changes of conditions, of operations, of environment, of mental attitude, or of relationships, and these changes may seem to the workers positively undesirable and even alarming. Then instruction and training do not suffice; a regular "selling" of the idea, with object lessons, should gain the good will of the workers and reduce their mental inertia in order to assimilate them into the changed organization. As shown before, the remaining inertia should be reflected upon the executive, in order that he can either change the form or content of his plan or make a further attempt to persuade his employees to follow him.

II. Correcting Traditions.—Perfecting workmanship and removing outworn traditions is thus the counterpart of the formation of ideals; the former decreases the

factor of resistance, while the latter increases the factor of power of productive activity. Hence, unless high skill is required, the proper assimilation of workers is more important than the selection of highly qualified workers. The instruction, training, and assimilation of working people is a function of management, since these things decrease resistance to production. Vocational guidance and vocational education, on account of their more general character, may be made rather a function of Industrial Engineering. Not the survival of the fittest, but the fitting of as many as possible to survive is the present motto for solving the question of labor supply. The recent extension of the field for the employment of women has demonstrated this truth anew.

The idea of the perfectibility of everything should be impressed on the minds of everybody. For, unless a man knows that continuous change in working methods is a part of progress, he will not think of or seek improvement. Moreover, his pride will be hurt when he is required to change his ways which once were the best.

The traditional fear of asking advice, of offering suggestions, or of criticizing should be removed through the safe channel of committees. Often the management believes that employees do not want to coöperate and, by its attitude, suggests to them that the company does not expect their coöperation. As a result, a tradition of indifference establishes itself.

Correction of obsolete traditions paves the way to better adaptation and facilitates new relations. It is, therefore, important to provide an organization for removing such traditions. The conference committee, the special committees, and the works council, in many cases, can prove to be an adequate medium. When a prospec-

tive variation is likely to antagonize the traditions of a large body of people, a campaign of promotion should be conducted among the interested employees before presenting the proposition to the vote of their representatives. Any innovation will be adopted if the traditions which it hurts are first removed. But traditions are often very tenacious.

III. Harmful Traditions to Be Removed.—The number of traditions which systematically prevent coöperation is astonishing. The harmful traditions most frequently found in industry are the following:

Unpleasant or unhygienic working conditions.

Instability of employment, partly due to lack of planning and coördination of work.

Dependence of the employee on the arbitrariness of the foreman.

Speeding up through intimidation, compulsion, fear, or constant fault-finding regardless of accomplishment.

Unwillingness to listen to suggestions.

Individual wage bargaining with employees.

Deficient system of payment which does not adequately reward personal effort.

Ascendancy of commercial motives without regard to quality of service.

Leaving the employee working alone without proper instructions and help.

Careless defining of duties which permits every one to dodge his responsibility.

Narrow limitation of duties which prevents initiative.

Inimical rivalry among men or foremen.

Employment of men too good for their jobs.

Example, given by the management, in wasting time and material.

Red tape which keeps officials from useful work.

Semi-automatic system of management in control of men too small to lead.

Unfair dealing, favoritism.

Many other harmful traditions are to be found in every business; the more ingrained they are the less we suspect their harmful effect.

IV. Two Aspects of Inertia.—There is a curious contradiction in the fact that pain is caused either by variation or monotony. Pain from variation is caused by the inability of the worker to adapt himself to new circumstances. Then he feels helpless and sometimes his pride is hurt. During a period of variation, the worker should not be left with a feeling of isolation, he should be properly coached; and his hesitation and inability should not be blamed.

Pain from monotony is not a peculiarity of highly specialized, manual work; indeed, it may be observed even among engineers who over and over again repeat the same course of computation, however complicated it may be. Alexander Bain declares:¹

Pleasure is, in fact, the primitive charm of all sensation, before it has been dulled by continuance and satiety. The corresponding pain is monotony, tedium, ennui. This arises from some parts of the system being unduly drawn upon, while others have their stimulation withheld.

Monotony is often aggravated by the pain of excessive subjectivity or self-consciousness. The absence of objective attractions leaves the mind in a subjective condition, which, when long continued, gives a sense of intolerable ennui.

Next to novelty is variety, alternation, or change. The longer any stimulant has been remitted, the greater the impression on its renewal. Variety is a minor form of

¹ Alexander Bain, *Mental and Moral Science*.

novelty. Our happiness depends materially on the wise remission and variation of objects of delight.

It has been recently found that shifting workers from one department to another and back again stimulates interest and increases production.

154. Interests.—Conflicting interests is the active force which retards variation. Conflicts of interests are not limited to capital and labor. They appear also among the different departments of the same concern. The bias which causes such conflicts may be corrected by a better understanding of the other fellow's point of view. Successful results have been achieved by shifting foremen from one department to another and by bringing them into committees, where ideas may be exchanged and community of interests perceived.

Between employer and employees, collective bargaining is the means for adjustment of interests; and sincere discussion in committee is the means by which antagonistic parties often come to see that interests which were supposed to be opposed are identical. Profiteering is a most powerful suggestion against coöperation.

CHAPTER XXXV

INDUSTRIAL ENGINEERING

155. Limitation of Competition.—Free competition has been unquestionably the source of all industrial progress; for, indeed, everything which has been accomplished industrially is due to competition. Nevertheless, its unrestricted extension has been the cause of great evil. Consequently not competition, but its misuse, should be eliminated.

Industrial production is the natural field of competition, where the contest of minds operates upon a relationship of things. The intelligent control of such things as place, materials, processes, and methods is naturally competitive and should continue to be so, because competition has proved to be the unfailing stimulus of progress.

Yet the field of the industrial relationship of men has no reason to be competitive, because in this field competition hinders progress. This naturally non-competitive field comprises the conditions in which work is performed and also welfare institutions of all kinds. Later, when industry shall be organized nationally, this field may include the bargaining of standard wages and hours of work.

Although the promotion of progress depends upon the initiative of private concerns, there is no reason why workers should not enjoy certain minimum uniform

standards of security, comfort, and hygiene in all establishments of the same sort. There is no reason for competition regarding the general welfare of workers which, to a great extent, determines their social status. There is no reason why a worker should be deprived of his old-age pension because he changes his employer. When such a privilege was granted as a personal kindness, it was used as a means for enforcing loyalty. But now the worker considers it a right; consequently, if the pension system is used to retain unwilling employees, it provokes resentment instead of inspiring loyalty. Owing to this change of mental attitude, workers regard misuse of the pension system and of welfare works as a flagrant iniquity. Health, safety, security, and vocational education are industry-wide interests in which employers can coöperate for their common benefit.

Now, that the non-competitive field is defined, we can define industrial engineering. It is the branch of human engineering which is concerned with the forces of industry in this field of non-competitive interests. It is concerned with human relations from the point of view of industry at large.

156. Coöperation of Employers.—The foregoing analysis, which differentiates the production interests from industry-wide interests, shows that it is desirable for each concern to retain and develop its individuality for competition along the line of sheer production, both as to process and labor management; whereas, matters of a non-competitive nature, such as safety, security, health, and comfort, which interest labor at large are a subject for coöperation among employers at large through their national association. The first step forward, to deal with this large body of problems which concern in-

dustry as a whole, has been suggested by Professor J. R. Commons as follows:¹

This is not saying that national associations either of employers or of unions have no place in the awakening new spirit of collective action. They have a place, but it is different. Their new place is more professional and educational and less executive and governmental. It is the place for comparing notes and statistics, sharing experiences, telling each other of their successes and showing how it is done in dealing with labor. It is less and less the place for depriving the employer of his freedom to deal with his employees in his own shop. Employers' associations will and must expand, but they should become great educational conferences on the methods, the purpose, and the spirit of shop organization rather than law-making bodies for their members.

This way leaves full liberty and initiative to the pioneer to make experiments on a small scale. After he has succeeded, it is his interest to spread the gospel of progress and induce his competitors to share his burden. Then, later, when a certain practice has been standardized, it is time to introduce a bill into the legislature in order to force the minority of recalcitrants to conform to the minimum requirements of the trade. That seems to be the practical way to attain a national standardization of policies regarding matters of industrial training, industrial research, health, safety, and security and to realize good industrial legislation. As L. P. Alford said:²

Before justice can be framed in the form of law there must have been developed a body of general principles. It is evident that the principles underlying industrial relations

¹ J. R. Commons, *Industrial Good-Will*.

² *Mechanical Engineering* for June, 1919.

are now in a process of rapid formulation. It is probable that before long our courts will have to pass upon an increasing number of industrial-relation controversies. Such matters are justiciable to-day; they were not twenty years ago. We may look forward to a time when controversies in regard to such rights will become just as justiciable as any controversy in regard to property.

157. Prospective Development.—Although no plan can be laid out in advance, the present situation suggests the following possible sketch of the development of organization for the purposes of industrial engineering. The forms of this organization will evidently be better determined by experience and the actual necessities of the industrial situation.

The first step is to organize in each unit a series of special joint committees composed of industrial-engineering specialists and workers. They will naturally keep themselves advised of the similar activities of other firms of their respective trades. After a time, conventions of these committees of a given trade may meet to exchange views, share experiences, and settle the current of tendencies. Later they can constitute for each trade district councils composed of delegates of the works committees. Then a national industrial council with jurisdiction over all industries may appear as the correlating factors with the outside interests.

The national council should include representatives of the district councils of all industries, engineering specialists with industry-wide views, representatives of the banks who can represent the capitalists, and delegates of the Government as spokesmen of the public. Such a board, which represents the different groups interested in industry, will issue definite recommendations or, as

the case may be, propose standard rules and regulations enforceable upon the individual concerns and groups of workers. Moreover, it will spread throughout the country the most advanced thought and practice which experience develops. It will have a considerable influence upon public opinion and can prevent, to a large extent, any particular group from exercising unjust pressure upon others. This will be, perhaps, its main duty.

158. Leadership.—The problems of industrial engineering include those of human relations and therefore differ greatly from those of production. The solutions of these two types of problems require different types of mind and different procedures. Problems of industrial engineering require scientific research by specialists. The specialist, however, should not work alone, because such a procedure is undemocratic and will develop conclusions quite at variance with the desires of workpeople. The closer he keeps in touch with the interested parties and the more they coöperate, the more practical and valuable will be his recommendations. The representatives of labor as well as those of management are generally incompetent concerning problems of industrial engineering. But, by specializing the work of the representatives of labor and management, by giving them full information, and by concentrating their attention and interest on certain points, the different specialists can quickly train these representatives for co-operation. The specialists, together with the representatives of labor and management, form industrial-engineering committees. Workpeople do not know all their needs and are often unable to express their wishes in an acceptable manner. Committees must do this for them. Many people believe that the workers know more about

safety than anybody else. It is not so, because man accustoms himself to danger and soon ceases to see it. We know how difficult it is to induce workers to wear goggles for grinding work, in spite of the frequency of accidents to eyes in that occupation. I have seen laborers using for themselves a badly-constructed freight elevator not safe enough for freight. They pretended there was no danger, because the elevator had never failed.

Their ignorance of hygiene is not less conspicuous. I knew a factory where employees worked in very damp rooms and suffered much from disease. The management built a bath, so that the employees might be able to go home clean and dry, and in good shape to meet bad weather; but no one used the bath. As an inducement the management offered to pay ten cents to each one who used the bath. Then the bathing rooms became successful and remained so after the inducement was discontinued.

Consequently, the object of industrial-engineering committees is not only study and research but also instruction. Its main function is perhaps assimilation of progress with workpeople and employers. It is only when workpeople are persuaded that progress is ahead for them that the realization of progress becomes a human interest.

Granted that the work of industrial engineering affects the establishment itself and often involves current expenses and investments that are not directly productive, great many of its activities interest capitalists. The president who represents the capitalists is then the person naturally designated to deal with these problems. The necessities of scientific researches, methods of education and formalities required by the appropriation of credi

will determine the procedure of this work. A series of committees representing industry-wide non-competitive interests has been outlined in Chapter XVI.

159. Technique of Industrial Engineering.—From the manager's point of view, quantity, quality, time, and cost are the end of industry. Nevertheless, if we abandon the immediate consideration of production and transfer ourselves to the more distant plane from which the president, who represents the entrepreneur, views his business, we see instead a slow development of social services, of opportunities, and of welfare institutions, which become more and more an end of industry. The purpose of industrial engineering is to organize collective industrial life for the pursuit of these forms of progress.

The statics of industrial engineering consists in building a system of human forces—loyalty, motives, ideals, traditions, and interests—which will insure progressive industrial life.

The dynamics of industrial engineering consists in making industrial progress stimulate coöperation in production. As Alexander Bain³ says, "association transfers the interest of an end of pursuit to the means." This phenomenon has already been discussed in Chapter XXXI.

Since the industrial organization is the means by which the worker expresses his life and establishes most of his relations with the world, it is evident that the progress of that industrial organization becomes vital to him and stimulates his coöperation.

160. Building Ideals.—Entirely occupied in the development of industry, the old-school entrepreneur controlled the industrial order to suit himself. But now

³ Alexander Bain, *Mental and Moral Science*.

industrial ideals have become collective and their realization gives value and significance to industrial life. Therefore, they must be formed with great care.

Vague aspirations have to be made clear and expressed concretely before they can vitally animate a collectivity. It is the duty of the joint committee of industrial engineering to interpret the aspirations and inquire into the needs of workpeople and to carry out the projects of the ideal institutions of their trades. But in order to stimulate the interest of the employees in actual progress, the committee must propagate these ideals and assimilate them with the employees. For example, an ideal may be the prevention of an occupational disease, such as hookworm, and the committee may determine that the institution which symbolizes this ideal is a bath installation. If the cause of the disease and the effect of the bath are explained to the employees, and if the dispositions and dimensions of the installation are talked over with them, it becomes identified with the workers' selves and the execution of the work then becomes an opportunity for self-assertion. They love such a form of progress because it is an expression of themselves, a materialization of their own ideas.

Ideals of industrial relations, some of which have been listed on page 244 (section 112), should be developed through an educational campaign, mainly by means of conferences, lectures, house organ, etc. Only a broad-minded leader can efficiently accomplish such a work, for the worker of to-day is a discriminating fellow. He receives with disdain every suggestion of the Sunday-school style.

161. Motives.—Too much emphasis has been put on the possession of money, as though that alone were

desirable. Without depriving ourselves of anything we need, we should appreciate other things which we can enjoy without possession. In reality, things have no intrinsic value; value arises from a sentimental relationship established between our minds and things. Consequently, things which have economic value are not only the things which can be exchanged, but everything with which we have a direct or indirect relation and which we can enjoy in any way. We attach a value to our environment if it conforms to our desires. Therefore, by making industrial progress an object of collective interest, the committees are not only builders of institutions; they are the creators of values. By connecting specific ideals of relation and of institutions for health, safety, security, and education with the sentiments corresponding to these ideals, they stimulate desires in the collectivity and create a dynamic power which transfers interest from the end of pursuit to the means for attainment: production.

For example, a plan of a school which shows only the premises and equipment appeals but to curiosity. But even without exhibiting the plan, if you show what the school will do for the young man, you stimulate many of his and his father's biotic, sentimental, and intellectual desires. And so on, every institution which realizes industrial progress must be assimilated with the spiritual world of the workers before getting a vital influence.

162. Traditions.—In order to make progress acceptable and valuable, the inertia which proceeds from ignorance, prejudices, dreams of Utopia, and erratic beliefs must be systematically removed by education and by object lessons. A standardization of conditions and relations based on common agreements between em-

ployers and employed will substitute a set of new traditions of the most valuable sort for outworn traditions and will assure stability in industry.

163. Interests.—Active resistance to progress in the non-competitive field of industry arises from conflicting interests between capital and labor since most demands for progress involve current expenses or permanent investment. The capitalist must be persuaded that not only has the development of industrial-engineering works become a social duty but that it pays. Moreover, coöperation in planning these works through the committees offers the invaluable advantage that the committee can exactly define a program of improvement and limit the expense by agreement upon the quota of each year. Thus the committee eliminates in advance occasions for disputes. On the other hand, the opposition of workers to the development of welfare works will vanish when they will recognize that these are not substitutes for just reward.

164. Loyalty.—The collectivity of labor will be loyal to the industrial system if correct opinions about this system are formed and above all if the system successfully promotes the progress of the collectivity of labor.

CHAPTER XXXVI

SOCIAL ENGINEERING

165. Definition of Social Engineering.—The evolution of the labor movement emphasizes the fact that the interests of labor have become predominant in society and that labor can no longer be regarded as a mere commodity. For the collectivity of labor, the ultimate purpose of industry is social progress; that is, a change for social amelioration according to definite standards set by human desires. This progress consists not only in building social institutions, but also in better adjustment of the particular interests of social groups. Consequently, the progress of the collectivity of labor is directly dependent upon the progress and consent of the other social groups, such as government officials, professional men, scientists, merchants, bankers, artisans, farmers, capitalists, and employers. These main groups are still further subdivided. From the point of view of society, labor itself cannot always be considered as a unit. The employees of every particular industry constitute a subgroup whose especial interests and duties must be harmonized with the interests and duties of the other groups.

Social engineering aims at this correlation by securing the coöperation of individuals within their groups and of the different groups with one another. This involves three functions, as follows: first, organizing the different groups and thus relating the individual to his

group; second, organizing the body of representatives of these groups and thus relating individuals to society; third, directing social forces for promoting social progress.

166. Technique of Social Engineering.—Promotion of social progress depends upon the direction and control of human forces—loyalty, ideals, motives, traditions, and conflicting interests—so that constructive activity obtains.

I. Building Loyalty.—Loyalty to the social order results from successful experience. The different social groups must feel that the present social order is beneficial to them; they must feel their solidarity with society as a whole. The group of employers is unshakably loyal to the present social order because this group has been fully benefited by the opportunities and guarantees offered by this order. The group of labor is indifferent or hostile because it has found out by experience that its support of the present social order has not always resulted in progress for labor.

Loyalty of labor will be gained only through observing the law of conservation of energy; that is, energy spent in production must reappear in constructive, social betterment for labor. Let us suppose, as a hypothesis, that production has been leveled down so that men produce merely what they consume. Then, there would be no social surplus and no progress. Now, if labor, by dint of daily extra effort, produces a large annual surplus over and above consumption, is labor entirely compensated by an extra money reward above the cost of living? In so far as consumption goes, the personal transaction is complete between employer and employed; but the implicit obligation between capital and labor as social groups is not satisfied until the group of labor re-

ceives, as compensation, the equivalent of its collective service in the form of social betterment. From the social point of view, services are exchanged by groups. The extra compensation paid to labor above consumption and the surplus accumulated by capitalists are not the end of endeavor, but merely transitory, distributive forms of wealth for further exchange. This exchange consists in the enjoyment of social institutions created by this surplus.

Consequently, in spite of the liberty which the individual capitalist needs to enjoy, capital as a class has a new collective obligation to invest social surplus in social institutions for the enjoyment of which the worker may eventually pay his dues. The working people do not want something for nothing. They are willing to pay taxes, fares, rents, etc., but they must have the things which these charges obtain for the modern citizen in a well-to-do community. Not alone are consumable goods valuable. The whole environment which we enjoy gives worth to our lives, and progress in our environment gives significance to our activity. Labor will produce only in so far as it can enjoy its own production. As a rule, every social group is loyal to the social order only when this order, by promoting social progress, benefits the group. Under such circumstances, people love their town and cling to it from generation to generation. In the best of the old countries, there is no migration or emigration because the home locality is dear to its inhabitants.

Thus understood, loyalty to the social order is so closely connected with industrial activity that it is safe to lay down the principle that conscious social progress stimulates the desires and energy necessary to create

motives for productive activity. Social progress rewards class coöperation; it secures loyalty to society.

II. Forming Ideals.—Human ideals shape our civilization and give rise to the most lasting of our institutions. For instance, the republican form of government symbolizes the ideals of liberty and justice in society. The committee system of management symbolizes the ideal of liberty and justice in industry. An organization for group coöperation symbolizes an ideal of solidarity.

Social ideals are closer to our daily experience. Among modern social ideals we particularly notice:

1. Comfort for the working class, symbolized by modern houses;
2. Recreation, by means of theaters, playgrounds, and recreational centers;
3. More education, by means of schools, libraries, public lectures;
4. Religious training and worship, symbolized by churches;
5. Public health, as promoted by a public-health department and hospitals;
6. Greater security of employment which results from the public employment bureau;
7. Preparation of the citizen to meet successfully the test of our competitive system, which should be the purpose of the vocational center;
8. Self-assertion in social life, such as is promoted by social centers and social works;
9. Reduction of the cost of living, an urgent social ideal which requires an adequate agency;
10. Perfect public services, such as are provided for competent building of the city and are supported by an enlightened public opinion;

II. The greater social ideal of the leveling up of the citizens.

Group ideals chiefly consist in better harmony through quick and fair means of adjusting the respective interests of the groups. True ideals can be built only if these groups correct one another's prejudices, define correct conceptions of one another's social functions, and educate one another to a common conception of social progress. For example, the question whether policemen may affiliate with the American Federation of Labor and may have the right to strike depends upon their ideal relation to society. A court can make a temporary settlement, but only the opinion and good will of the policemen themselves, in agreement with other groups, can effect a permanent and satisfactory settlement. The ideal social status of each group cannot be determined by its own resolution alone, any more than it can be determined by the resolution of another group alone. It requires an agreement of all interested groups.

The formation of all these ideals requires a great deal of constructive thinking and an organization of public opinion; but no social progress can be realized until social ideals are clearly formed in the minds of people.

III. Social Motivation.—The motives which stimulate activity for the realization of social progress are biotic desires and sentiments.

Biotic desires can be converted into motives for constructive action. As Professor E. A. Ross says:¹ "The primordial forms of biotic energy are hunger and love, but, by check, these can be converted into other orders of desire just as the arrest of a moving body transforms its motion into heat, light, and electricity." The check which

¹ E. A. Ross, *Foundations of Sociology*.

can convert hunger and love into social stimulus may consist in a higher standard of living. Such a standard makes undesirable the lower mode of satisfaction and stimulates energy for the attainment of the standard.

A motive for the best men is the sentimental desire of being *primus inter pares*, that is, first among equals. Others in the realization of an idea which dominates their personality have self-assertion as a motive. The public may be stimulated by appeals to the sentiment connected with any given proposal, but the great stimulus is an opportunity to coöperate in some way in planning institutions for social progress. It is not merely sufficient that social institutions become actual; they must acquire personal value. Coöperation stimulates the citizen's self-assertion because he regards every forward step as the realization of his own thought; and thus progress becomes dear to him.

The Standard Oil Company uses this stimulus in its new labor policy, of which I quote the following abstract:²

The company proposes to build the best houses possible for the men to live in, not, be it stated, as a charity, but as a simple business plan, with a maximum profit of six per cent on its investment. But the company's directors, officers, and experts will not decide how those houses will be built. The men will decide. The architect will submit plans to the men's representatives.

The same idea holds good in every social problem which interests labor. Coöperation with labor is essential, whereas mere concession to labor is wasteful and demoralizing.

² *New York Times* for April 7, 1918.

In social engineering, there is no attempt at high efficiency. The everlasting imperfection inherent in human work must be expected and should not discourage us, for imperfection is the material to be worked upon. By getting what he has not and becoming what he is not, man realizes his ideals and becomes happy. We have studied the factors of power which direct activity toward social progress. In the following two sections we shall consider the factors of resistance which oppose progress.

IV. Correcting Tradition.—Beliefs and sentiments which belong to the social order and which have been handed down from generation to generation, form a code of traditions extremely powerful and tenacious. They frame the social order and make it stable, for we like a world with which we are assimilated. But some outworn and foreign traditions tend to perpetuate, among certain groups, conditions out of harmony with our present society. Such, for example, is the commodity status of labor, a heritage of past social ideals, and such are the many obsolete and strange traditions brought to America from all old countries. These traditions conflict so much with our modern traditions that they menace the present social order and retard progress. Therefore, decrease of the factor of resistance to progress results from substituting, for harmful traditions, new traditions which are in accord with our institutions. Foreign groups must be trained to adapt themselves. If, instead of living apart, these groups came into association with Americans, they would give up many injurious traditions.

V. Harmonizing Conflicting Interests.—Conflicting interests hinder progress in two ways. First, the essential but remote interest of a group often conflicts with its own immediate interest. For example, the ultimate

interest of labor is in a cheap product through machine production, while the immediate result of introduction of machinery is unemployment and lower wages. Again, to the North, the industrial development of the South means at first fearful competition; while, in the long run, the prosperity of the South will open new markets to the North. Secondly, a social change which benefits the community hurts the interests of some groups. For instance, the introduction of electric street-cars and taxicabs hurt the vested interest in the hackney-coach and caused unemployment among drivers. The introduction of the electric light seemed to oppose the vested interests of gas plants; but, instead, a fashion for better lighting, which increased the consumption of gas, resulted. The development of canals seems to oppose the interests of railroads; but experience proves that rail and waterways are coöperators rather than competitors. Indeed, cheap water transportation of heavy bulks, such as coal, stones, bricks, sand, and the like, fosters the development of industries and as a consequence that of railroads; for most materials and finished products are best transported by railways. As a rule, every social change, however beneficial, opposes, or seems to oppose, temporarily or permanently, the interests of some group. Consequently, in order to hasten social progress, the losing group should be indemnified, its interests adjusted, and its vision broadened so that it will cease to oppose a desirable change.

Another opportunity for conflicts of interests is offered by the dependency of the community upon those groups which can control the essentials of social life, such as railroads, local transportation, docks, electricity, gas, water, fire engines, police protection, post office, tele-

graph, telephone, coal, meat, milk, and so on. Conflicts of this kind present most serious problems to society, because the monopoly, which these groups in fact enjoy, gives them endless opportunity for exercising tyranny upon the community. The solution of these problems is not yet in sight, and it is not a simple one. Nevertheless, much progress can be achieved by organizing the opinion of the different groups, by drawing them closer for common understanding, by supplying substitutes whenever possible; by providing means of reprisals, and by constructive legislation. As a principle, these monopolists of essentials should be so related to society as not to feel omnipotence, for a large collectivity, conscious of its omnipotence, can easily take a criminal mood.

The current economic conflicts, which in competitive industries arise between employer and labor, are much less dangerous; they can be settled by collective bargaining and arbitration. The settlement is a function of industrial engineering, although, in certain difficult cases, the judgment of other non-industrial groups may be appealed to as a last resort. Since the settlement to a large extent depends upon the competitive power of the parties, no disinterested board, however impartial, can adjust such conflicting interests. A democratic adjustment must come from the collective bargaining of the parties themselves. When there is a losing party, the weight of an enlightened public opinion is necessary to increase the strength of the weaker group and discipline the loser.

167. Individual Liberty vs. Social Interference.—Autocracy, in dealing with groups of men, makes the mistake of attempting to mold the individual personality according to its standard. But the personal world is something too individual, too subtle, and also too

sacred for any one to control by compulsion. The individual must have a chance to manifest his originality and be happy in his own way. Moreover, progress springs from variety. The joy of life, which is the prime energizing force, depends upon individual liberty, as William James truly showed in the following:³

The ground of a man's joy is often hard to hit . . . it is so little bound with external . . . that it may touch them not, and the man's true life, for which he consents to live, lies together in the field of fancy . . . the true realism is to find out where joy resides. For to miss joy is to miss all.

And after citing cases where mere fads made hardship enjoyable, he goes on quoting from Robert Louis Stevenson:

If we have not the secret, in each case we miss the personal poetry, the enchanted atmosphere, that rainbow work of fancy that clothes what is naked and seems to ennoble what is base; in each, life falls dead like dough instead of soaring away like a balloon into the colors of the sunset; each is true, each is inconceivable; for no man lives in the external truth among salts and acids, but in the warm, phantasmagoric chamber of his brain, with the painted windows and the storied walls.

And James goes on:

Now, the blindness of human beings . . . is the blindness with which we all are afflicted in regard to the feelings of creatures and people different from ourselves. We are practical beings, each of us with limited functions and duties to perform. Each is bound to feel intensely the importance of his own duties and the significance of the situations that call these forth. But this feeling is in each of us a vital secret, for sympathy with which we vainly look to others. The

³ William James, *On Some of Life's Ideals*.

others are too much absorbed in their own vital secrets to take an interest in ours. Hence, the stupidity and injustice of our opinions, so far as they deal with the significance of alien lives. Hence, the falsity of our judgments, so far as they presume to decide in an absolute way, on the value of other persons' conditions or ideals. . . . The first thing to learn in intercourse with others is non-interference with their own peculiar way of being happy, providing those ways do not assume to interfere by violence with ours. No one has insight into all the ideals. No one should presume to judge them offhand. The pretension to dogmatize about them in each other is the root of most human injustices and cruelties.

All attempts at unifying public opinion have always failed because too many irreconcilable elements are involved. Men differ according to race, station in life, mind, character, and ideals. Besides, because man does not remain stationary but progresses, his opinions vary at each stage of his evolution. Therefore, liberty of opinion must exist.

The social world cannot be built upon the peculiarities of individuals. Indeed, our civilization is based on community of beliefs, ideas, desires, sentiments, and aspirations which bind individuals into collective spiritual organizations. A society cannot be constructive unless a majority agree as to its purposes. So, when the field of opinion is restricted to occupational or city-building interests, it is not only possible, but indispensable, to create a majority opinion as to social ideals, traditions, and interests.

At the present time we see social life divided into divergent group lives. Each of these groups has its distinctive public opinion, creed, ideals, moral standards, and leaders. In short, each has a more or less distinct life

of its own. The bias of the groups is the "vital secret" that prevents mutual comprehension and creates most conflicts. Therefore, social progress is accomplished by creating social ideals, by extending interests beyond the groups, and by increasing human solidarity. Solidarity is the characteristic of our time, for, says Professor E. A. Ross:⁴ "Now we see growing up a civic, metropolitan, national, or even racial communion binding men into mammoth aggregates."

Consequently, the purpose of social interference with individual liberty is to perfect the adaptation of the individual to his group and the adaptation of the groups to one another, in order to realize more liberty in the sense given by Professor Woodrow Wilson in the following:

The individual is free in proportion to his perfect accommodation to the whole, or to put it in the other way, in proportion to the perfect adjustment of the whole to his life and interests. Men are free in society in proportion as their interests are accommodated to one another, and that is the problem of liberty.

168. The Organization of Thought.—The evolution of the individual and of community life into social life has made imperious the organization of a collective spirit which identifies the common aspirations of its members. The idea is not new, but it is becoming the most important of social problems. Professor E. A. Ross says:⁵

Somehow the thinking of many men has resulted in a whole composed of congruous elements fitted together as steel beams are fitted into a bridge span. The process of

⁴E. A. Ross, *Social Control*.

⁵"Organization of Thought," *American Journal of Sociology*, November, 1916.

thus articulating ideas may be termed *the organization of thought*. Nor does system building exhaust the coöperation of minds. Common opinion—class, group, or public opinion—is usually the resultant of many individual contributions, the residue left after the offerings of each have been winnowed in the mind of the rest.

As society develops, the proportion of us who bear a hand in organizing thought becomes less. More and more our headaches come from the effort to appropriate the fruits of other men's thinking. . . . The reason for this concentration is near at hand. Team thinking goes on only among persons well matched in equipment. Hence, as soon as there appear in any field, men of special knowledge or training, with exceptional faculties in the way of collections, laboratories, travel, mutual access, and stimulating association, the rest of us fall silent and content ourselves with walking henceforth in trails other men have blazed. . . . The organization of thought in respect to fundamentals is left to a rather small number of men. . . . Our growing passiveness in respect to constructive thought does not cause us to become equally passive as regards decision. Jealously we cling to our place in will organization even if we drop out of thought organization. The specialist shall not steal away the layman's freedom.

And again:⁶

If the commons are not competent to judge projects, they are at least competent to judge results. . . . Grant the wise few the obligation to surrender the power if the many find the consequences not to their liking. The choice of means and methods is left to the few who stand or fall by results.

The increasing complexity of society makes it necessary to shift social control from the hands of amateurs into those of trained men, in order to realize a systematic integration of the members of society and exercise

⁶ E. A. Ross, *Foundations of Sociology*.

rational direction on the active pursuit of willing, social progress—the most valuable form of life for an industrial people.

169. Organizing Bodies.—Formation of democratic opinion has been commenced through the open-forum movement which is developing rapidly in many parts of this country.⁷ The object of the social center advocated by this movement is to bring men together into common counsel in order to clear up misunderstandings and discover what their common interest is. Up to the present time, the action of these social centers has been generally limited to social education; nevertheless, it seems that these centers could participate in social-development work by connecting themselves with organized bodies of specialists. Just at present, it is the intention of the most prominent engineering societies of America to coöperate nationally in order to take an active part in public affairs.⁸ Granting that social development goes along with the building of the city, the coöperation of engineers may prove invaluable in imparting correct information on technical matters. Furthermore, the engineers are in close business relations with the workers and through the engineering societies, which already cover the whole country, can easily extend privileges of their association to the collectivity of labor.

It is not likely, however, that a national organization for the purposes of social engineering will develop spontaneously within a reasonable time. A department of social engineering, directed by sociologists, engineers, business men, hygienists, educators, economists, moral-

⁷ See E. J. Ward, *The Social Center*; Geo. W. Coleman, *Democracy in the Making*; and Bulletins of the University of Wisconsin.

⁸ *Mechanical Engineering* for July, 1919.

ists, city-builders, and administrators, should be created. The purpose of such a department is to develop the technique of social engineering and standardize its methods, to foster the organization and representation of social groups, to collect information about the activities of these groups, and to publish impartial reports on questions of actual interest so that an enlightened public opinion may result. This department should also interpret the facts from different points of view, forecast or help to forecast the consequences of popular actions, build new social valuations, and suggest directions for social activities. With the help of such a competent department, local groups can organize rapidly for a constructive purpose by an effective control of the social forces—loyalty, ideals, motives, traditions, and interests. In some sort of committee or forum, the capitalist, the technicians of different branches, the workpeople, and all other citizens can meet and talk freely about their different problems, adjust their respective interests, and support or criticize the work of the administration. The aim of such a fully constituted social organization is not only to achieve social progress but also to afford opportunity to everybody to share activity in social life. Man wants to do something, good or bad; but he works constructively when he has opportunity to do so.

170. Formation of Public Opinion.—Social control is beyond the scope of this book; its methods are developed by sociologists. The principle involved in the formation of a democratic public opinion consists in developing opinions by action and reaction between leader and followers. Professor Charles A. Ellwood said:⁹

⁹ "Making the World Safe for Democracy," *Scientific Monthly*, vol. vii, p. 511 (1918).

If we don't have free thought and free public discussion before a policy is entered upon we cannot have that process of mutual education by which the most rational ideas are brought to prevail. It is only through free discussion and the formation of public opinion . . . that democracy can be a safe and efficient means of social control. In democracy, then, it is public opinion which is the force that lies back of the power of all regulative institutions, and democratic society can be efficient and successful only in proportion as it succeeds in making public opinion rational and powerful.

It is upon a free and untrammelled press, yet one controlled by a high sense of social obligation, that the formation of a rational public opinion depends. The success of democratic governmental control will depend not so much upon governmental coercion of the individual as upon eliciting his spontaneous initiative and intelligent coöperation. . . . To be a success, then, modern democracy must educate the whole body of citizens in knowledge of social situations and in a sense of social obligation and especially in self-government.

By fraternity we mean such sympathy, understanding and good will among the members of a group that what they do collectively represents the uncoerced will of all—a spontaneous expression of the inner psychic unity of the group or at least of a majority of its members—through like-mindedness.

Democracy does not preclude leadership or the highest degree of coöperation with leaders. Doubtless the mass of men cannot be trained to be experts . . . and modern democracy has not yet fully awakened to the importance of training its leaders.

Leadership in social engineering may come from the most unexpected source. The leader need not be an expert to give impetus to a movement. He is the superior individual who believes in an idea, initiates and runs an organization, and devotes his thought and his time to it during as many years as are necessary. Other

men imitate and follow him. The expert is necessary to develop ideas and methods, but he seldom has the faith and devotion of a leader.

The formation of social ideals may differ a little from the formation of ideals by individuals.¹⁰ Social centers offer opportunity for capitalists to come in contact with specialists, workingmen, and other people, to work together in order to make explicit what the people want, and to get acquainted with the "vital secret" of one another. Pain and pleasure, as the great educators of mankind, will suggest vague aspirations which first must be interpreted and then expressed in terms of some concrete proposal. But this proposal is not yet an ideal, because it is unassimilated. The primary impression which it makes in the minds of individuals provokes their objections and makes their desires clearer. A reciprocal action between leader and followers will succeed. It consists in deepening, modifying, and effacing the primary impression by appeals to reason and emotions, by suggestion, by prestige, by examples of others, and by object lessons. Such reciprocal influence and coöperation may produce, for the information of the mass of people who do not participate in social activities, decisions clothed with unique authority.

The promotion of leadership, the exact constitution and attributes of social centers or group representation, the specific objects of pursuit, the way by which to enforce or induce investment of capital in social works, are open questions, and are beyond the scope of this book, whose object is merely the study of the engineering of human forces involved in industry. If I have made clear that industrial life consists in a closed cycle of transfor-

¹⁰ See Chapter XXI, section 98.

mation of energy, the efficiency of which depends upon the correlation of production, industrial engineering, and social engineering, my present task has been accomplished.

CHAPTER XXXVII

CONCLUSION

171. An Historical Summary.—On account of the spirit of the old time, of the amount of initiative required, and of the tremendous risk involved in early business, industry has developed under the autocratic principle. Autocracy based on the authority of the master and on the servility of the worker resulted naturally in abuses on the one hand and in hostility on the other. Free competition in industry and unrestrained individualism of employers and laborers made laborers industrial dependents, and, as industry grew, these two parties formed distinct classes. The common misery of laborers quickened their feeling of injustice and developed class consciousness. Then the classes of employers and wage-earners grew hopelessly separated by sectarian spirit, and the class struggle followed.

At present the old abuses have been generally corrected and conditions have considerably improved. Nevertheless, antagonism increases. Modern employers have been rather anxious to satisfy employees, but, misled by the letter of the demands of labor, employers have granted concession after concession until even their right to profits has been questioned. Unfortunately, concession which is obtained by compulsion is unsatisfactory, for the only limit to its extension is the complete subjugation of capital by labor. An arbitrary settlement by compro-

mise under pressure is governed by no principle. It is a series of partial defeats and surrenders which will stop only when there is nothing left to concede.

The crude methods of strike and lockout have been softened by a system of conciliation and arbitration, more human and less expensive. But we must recognize that this is not a solution, since it fails to remove the cause of conflicts. So, the consequent state of warfare ever continues, undermines industry, and menaces civilization itself.

172. The Solutions to the Industrial Problem.—The review of the different solutions offered by socialism, state socialism, coöperatives, and monopoly which have been devised to perfect the control of production shows first the deficiency of socialism as a rational system which is not evolved from experience and shows, secondly, the limitations of the other systems of control. There is no royal road to industrial peace through substitution of our present system for another. But a hopeful vision of happier relations may be seen in a readjustment of our system to the true spiritual nature of man and to the aspirations of the collectivity.

173. The Laws of Life Must Govern.—Indifference to production paralyzes industry. The women who recently replaced men in the workshop produced from 25 per cent to 200 per cent more than the men whom they replaced. Therefore, the promotion of good will for the purpose of releasing the latent energy of men would be a considerable advantage to the nation. There is, however, nothing inherent in the philosophy of labor which compels it to decrease production. Labor unrest has been respectively ascribed to the commodity status of labor, to dependency, to working conditions, to living condi-

tions, to subjugation, to insecurity, to loss of individuality, and to maldistribution of riches. All these causes contribute to unrest. Their combination creates an environment in which the worker lives merely to work and in which every condition occasions a restriction of life. In the ideal industrial order, the worker works to live and all his environment promotes the expansion of life. This is essential to effective reformation. Therefore, a stable relationship between labor and other groups is not predetermined by any precedent interest and cannot be established by force. It must be governed by the laws of life; that is to say, it must promote continuous material progress and the spiritual emancipation of labor.

Justice demands that earnings be proportionate to efficiency, that a minimum standard of living be made secure to the old folks as well as to the workers, and that labor has a just share in general prosperity. At present, all open-minded business men recognize that the prosperity of labor does not result at the expense of employers. The recent tremendous growth of social services makes it necessary to change our point of view toward social surplus. When life was more individual, the possession of wealth was the only ideal. Now, on account of the development of collective life, the disposal of the social surplus for social enjoyment has become a more vital problem than a fairer distribution of wealth.

The spiritual emancipation of labor presents two phases, one personal and the other collective. In business the individuality of the worker who is now merged in the crowd must be revived in order to treat adequately his particular interests and to give him opportunity for self-expression. In society, he must be trained to stand prosperity and become a responsible citizen. Further-

more, the group of labor is one of the parties to industry and, as such, must be treated collectively. The spiritual emancipation of labor has begun through the committee system for coöperation in management. Such coöperation corrects the destructive tendencies of labor by investing the committees with a constructive mission. The constructive ability of a collectivity is not, however, spontaneous; it is determined by the organization of thought and the right stimulation of sentiments. Consequently, the success of the system depends primarily upon the ability of its leadership to realize true progress. The modern leader wins the good will of labor by entering into the spirit of his organization and by substituting scientific treatment of the collectivity for the old wholesale treatment of labor as a soulless body.

The object of human engineering is to attempt to disclose the laws which govern the life of industrial collectivities and to set forth the means by which their activities may be controlled for the expansion of life, which we identify with the promotion of progress.

174. Engineering of Human Forces.—Industry has become a social organism in which the worker can no longer be dissociated from the collectivity of labor nor from the citizen. His daily production, his industrial relationship, and his social status have sympathetic connections one with another which shape the meaning of his life. Therefore, production, industrial engineering, and social engineering must be controlled and correlated. These activities can be controlled by proper management of the human forces—loyalty, motives, ideals, traditions, and interests. The engineering of these forces constitutes a system simple enough to be put into practice by business men. Industry and society must be so correlated

as to form a system in which the coöperation of the individual in production will inevitably result in social progress for the enjoyment of the individual. Collective ideals convert personal desires into collective desires. Then the emotion of desire intensified by mass suggestion stimulates the individual to realize through production the collective ideals. Such organic relation between individual and group realizes self-government in a natural way. It need not appeal to self-sacrifice, because it reconciles the conflicting tendencies of personal and social interests. It conforms to the law of conservation of energy which demands that an equivalent of every expenditure of energy appear in an enjoyable form of progress in proper time and place. Individual workers occasionally promote efficiency under a system of management which thoroughly protects their own interests. But, in order that coöperation have social significance and become a moral obligation, the groups of workers, of employers, and of capitalists must have common ideals, beyond individual earnings. They must coöperate in promoting progress. Labor will coöperate in production if employers coöperate in promoting progress in safety, security, health, comfort, justice, and spiritual development; and if capitalists coöperate in promoting social progress, both through investment in social institutions and service in social engineering. In business, it is vain to demand coöperation without return. Therefore, a system of correct relations is needed, in which the coöperation of all wins the good will of each.

175. The Committee System and Coöperation.—The committee system is an admirable instrument for coöperation in management because it is suitable for the spiritual organization of industrial forces. A complete

system of committees offers endless opportunities to the energetic workers to coöperate frankly and honorably in a constructive way for the great cause of humanity. They will like better to spend their surplus energy for good than for evil. If they can show positive results in terms of progress, they will win followers and transform the industrial populations into unshakable supporters of the social system. The committee system, extended to social engineering, can bring together the representatives of the different social groups for the purposes of common education, collective bargaining, promotion of progress, and formation of public opinion. The future stability of society depends upon the balance of power of the different groups.

A common illusion is to suppose that some state of affairs might be permanently satisfactory; but it is vain to look for a life devoid of disagreement. The ideal is not, therefore, to create a permanent order of things, but to develop an organization for spontaneous adaptation of the different social groups. Discontent will ever result from the limitations of our attainments, whatever may be the degree of advance of civilization. Man's faith in his ability to realize the variations which pain suggests is the unfailing appeal to joyous effort. Imperfection is the raw material upon which man works eternally. The emotion of struggle and victory is the essence of happiness.

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BIBLIOGRAPHY

- BAIN, Alexander, *Mental and Moral Science*. (New York, Longmans, Green.)
- BRIZON, P., et POISSON, E., *La Coopération*.
- BUREAU OF INDUSTRIAL RESEARCH: "The Industrial Council Plan in Great Britain"; "American Company Shop Committee Plans."
- BUTLER, R. L., *Marketing Methods*. (New York, Alexander Hamilton Inst.)
- CHURCH, A. H., *The Science and Practice of Management*. (New York, Engineering Magazine.)
- COLEMAN, George W., *Democracy in the Making*. (Boston, Little Brown.)
- COMMONS, J. R., *Industrial Good-Will*. (New York, Macmillan.)
- DROMARD, G., *Le Rêve et l'Action*. (Paris, E. Flammarion.)
- EMERSON, Harrington, *Twelve Principles of Efficiency*.
- FOUILLEE, A. J., *La Psychologie des Idées-Forces*. (Paris, F. Alcan.)
- *L'Evolutionisme des Idées-Forces*. (Paris, F. Alcan.)
- *La Morale des Idées-Forces*. (Paris, F. Alcan.)
- GALLOWAY, Lee, *Organization and Management*.
- GARRIGUET, *L'Evolution actuelle du Socialisme en France*. (Paris, Bloud.)
- GOMPERS, Samuel, *The American Labor Movement*. (Washington, Amer. Federation of Labor.)
- GOWIN, E. B., *The Executive and His Control of Men*. (New York, Macmillan.)
- GUYOT, Yves, *Where and Why Public Ownership Has Failed*. (New York, Macmillan.)
- HOBSON, J. A., *The Evolution of Modern Capitalism*. (London, W. Scott.)

JAMES, William, *The Energies of Men*. (New York, Moffat, Yard.)

——— *On Some of Life's Ideals*. (New York, Holt.)

JOHNSON, J. F., *Business and the Man*. (New York, Alexander Hamilton Inst.)

KELLY, R. W., *Hiring the Worker*. (New York, Engineering Magazine.)

KING, W. L. MacKenzie, *Industry and Humanity*. (Boston, Houghton, Mifflin.)

LE BON, Gustave, *The Crowd*. (London, T. Fisher Unwin.)

——— *Psychology of People*. (London, T. Fisher Unwin.)

——— *La Psychologie des Foules*. (Paris, F. Alcan.)

——— *La Vie des Vérités*. (Paris, E. Flammarion.)

——— *Les Opinions et les Croyances*. (Paris, E. Flammarion.)

LE DANTEC, *La Science de la Vie*.

LEE, F. S., *The Human Machine and Industrial Efficiency*. (New York, Longmans, Green.)

LEITCH, John, *Man to Man*. (New York, Forbes.)

LLOYD, C. M., *Trade Unionism*. (London, A. & C. Black.)

MEADE, E. S., *Economics*. (New York, Alexander Hamilton Inst.)

——— *Trust Finance*. (New York, Appleton.)

NATIONAL INDUSTRIAL CONFERENCE BOARD, Pamphlet.

ROCKEFELLER, John D., Jr., "Labor Representation." (Pamphlet.)

ROSS, E. A., *Social Psychology*. (New York, Macmillan.)

——— *Foundation of Sociology*. (New York, Macmillan.)

——— *Social Control*. (New York, Macmillan.)

SEAGER, H. R., *Principles of Economics*. (New York, Holt.)

——— *Government Regulation of Big Business in the Future*. (Philadelphia, American Acad. of Political and Social Science.)

SCOTT, W. D., *Increasing Human Efficiency in Business*. (New York, Macmillan.)

——— *Influencing Men in Business*. (New York, Ronald Press.)

- SPARGO, John, *Socialism*. (New York, Macmillan.)
 SIMS, N. L., *Ultimate Democracy and Its Making*. (Chicago, McClurg.)
 STODDARD, W. L., *The Shop Committee*. (New York, Macmillan.)
 TEAD, Ordway, *Instinct in Industry*. (Boston, Houghton, Mifflin.)
 TODD, A. J., *Theory of Social Progress*. (New York, Macmillan.)
 TUFT, J. H., *Our Democracy*. (New York, Holt.)
 UNIVERSITY OF WISCONSIN, Bulletins.
 WALLING, W. E., *The Socialism of To-day*. (New York, Holt.)
 ——— and LAIDLER, H. W., *State Socialism*. (New York, Holt.)
 WARD, E. J., *The Social Center*. (New York, Appleton.)
 WARNE, F. J., *The Coal Mine Workers*. (New York, Longmans, Green.)

PERIODICALS

American Journal of Sociology:

- July, 1915, H. Langerock, "Professionalism."
 July, 1916, E. A. Ross, "The Organization of Effort."
 November, 1916, E. A. Ross, "The Organization of Thought."

American Machinist:

- August 1, 1918, Ellsworth Sheldon, "An Industrial Democracy."
 August 1, 1918, "William Filenes' Sons Co."
 October 24, 1918, "Babson Conference."

Annals of the American Academy of Political and Social Sciences:

- September, 1904, W. Macarthur, "Political Action and Trade Unionism."
 January, 1919, V. Everit Macy, "Seven Points for a Reconstruction Labor Policy."
 ——— J. D. Rockefeller, Jr., "Representation in Industry."

——— C. M. Schwab, "Capital and Labor."

March, 1919, Irving Fisher, "Humanizing Industry."

——— S. C. Mason, "How American Manufacturers
View Employment Relations."

Automotive Industries:

1919, Harry Tipper, series of articles.

Blast Furnace:

February, 1919, "Steel Plant Industrial Relations
Studied."

Cassier's:

June, 1918, A. Ramsay, "Industrial Revolution."

Current Opinion:

August, 1918, "Why Mr. Benson Has Resigned from the
Socialist Party."

Electrical World:

March, 1919, R. H. Rice, "Improving Relations of Em-
ployer and Employees."

Engineer:

September 20 and 27, E. T. Elbourne, "Labour Adminis-
tration."

Industrial Management:

October, 1917, D. S. Kimball, "Labor Maintenance as a
Factor in Management."

December, 1917, E. F. Henry, "One Price System of
Wages."

March, 1918, R. W. Kelly, "Labor Factors in Our Ship-
ping Program."

——— J. D. Hackett, "Standardization of the Causes of
Leaving Jobs."

April, 1918, Hon. W. B. Wilson, "Administration of War
Labor Problems."

——— H. T. Wade, "International Standards."

Iron Trade Review:

December 12, 1918.

Labor Review:

October, 1918.

Literary Digest:

February 8, 1919, "Labor's Voice at the Peace Table."

Mechanical Engineering:

June, 1919, L. P. Alford, "The Status of Industrial Relations."

July, 1919, "Report of the Committee on Aims and Organization."

Royal Philosophical Society of Glasgow:

1913, G. N. Barnes, "Coöperation in Relation to the Industrial System."

Scientific Monthly:

Vol. 7, 1918, p. 511, C. A. Ellwood, "Making the World Safe for Democracy."

Standard:

December, 1918, F. Adler, "The Punishment of Individuals and of People."

Survey:

December 12, 1914, "Criticism of Existing Trade-Unionism."

— December 7, 1918, F. Frankfurter, "The Conservation of the New Federal Standards."

— Reprint, May 3, 1919, "Report of the Provisional Joint Committee of the British Industrial Conference."

— Reprint, October 5, 1919, C. G. Renold, "Workshop Committees."

Times (London) Engineering Supplement:

June, 1918, Supplement to *Whitley Report*.



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